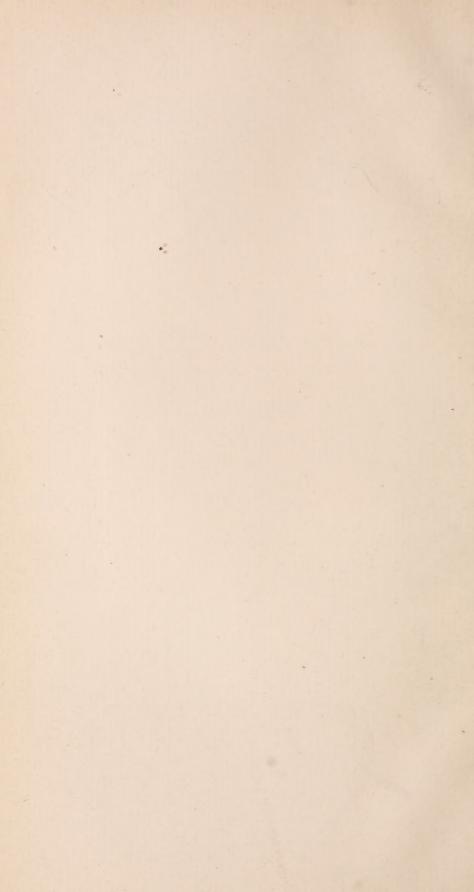


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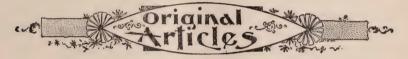
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WATER SUPPLY AND SEWAGE DISPOSAL IN CLEVELAND.*

BY CADY STALEY,

President of Case School of Applied Science.

When General Cleveland and his party first came to this town, the questions of water supply and sewage disposal were not at all pressing. If they wanted water, they could dip it from Lake Erie or the Cuyahoga river, and there was no fear of sewage pollution in either source of supply. But suppose the General could now come back to the town which perpetuates his name, and should attempt to slake his thirst from the sparkling Cuyahoga, or from the lake along the city front, what would he think had happened?

The change which has been wrought in the natural sources of water supply in this city, is simply that which comes to them in every locality where human beings are massed together, and no steps are taken to protect the streams and lakes.

When the population is sparse, the natural sources of water supply are easily protected from contamination. If a residence is not near a stream or body of water, a well will

*Read before the Cleveland Medical Society.

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usually afford an abundant supply of good water. But as the population becomes more dense, the primitive methods will no longer be applicable.

At first, when the dwellings are far apart, the liquid wastes are thrown out on the surface of the ground. As the houses are built nearer together, and villages grow up, cesspools come into use, and the ground about the dwellings is soaked with sewage. Little by little the leachings from the cess pools spread, and the time soon comes when all the wells are polluted.

In the early days, in any community, all sanitary matters were left to the individual house-holder. The questions of water supply and sewage disposal were settled by each family as it deemed best. But in all growing towns the time will come when sanitary matters must become a public affair, and must be dealt with by the community as a whole.

One of the first moves usually made in the line of sanitary improvement, is to put in water works. The water is taken from a neighboring stream or lake, and brought to the town either by gravity or pumping. The supply of water by water works very largely increases the amount of water used, and the water once soiled must be disposed of. If the water has been taken from a stream above the town, the corporation authorities usually will not hesitate to discharge the sewers into the same stream below the town, regardless of the rights or necessities of the towns farther down the stream.

When the volume of sewage is small in comparison with the flow of water, this method may pass unchallenged for some time. In the older countries of Europe, however, where the population is more dense, the matter has been taken in hand by government, and towns are obliged to purify their sewage before turning it into the streams. A similar course must be pursued in this country, or the problem of providing pure water for cities will soon be impossible of solution.

Occasionally we find a town where the water supply has been taken from a pond or lake, and, strange to say, sometimes the sewage from the town is returned to the same body of water, in dangerous proximity to the intake of the



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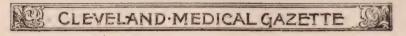
water works. This condition of affairs is very much the same as if a man should use, as a cess-pool, the well from which he procures his drinking water. There are several large cities where this scheme has been tried, and they are now facing the problem of whether they shall use their lake as a water reservoir or a cess-pool. A choice must be made, because, the people, having once had their attention called to the real condition of affairs, are seldom quite willing to push economy so far as to insist upon using the same reservoir for both purposes, especially when the results are plainly manifest in the water supply.

Chicago tried this experiment, and as the sewage pushed farther and farther into the lake, they kept moving out the intake of the water works farther from shore. But, however far they moved out the water works crib, the sewage soon overtook them, and the same trouble appeared. They have now concluded to solve the problem permanently, by reserving the lake as a water supply, and providing another outfall for the sewage. They are spending thirty millions of dollars in digging a canal to reverse the flow of the Chicago river, and carry their sewage over into the Des Plaines river. From there it will flow on to the Gulf of Mexico.

Cleveland is facing the same problem to-day. What shall be the solution? The bad condition of our water supply is beyond dispute. Examined by any of the methods of analysis, chemical or biological, and the water simply varies from bad to worse. One of two courses must be taken; either to move the water works intake, or the sewage outlet. The water works intake must be moved far enough west, or out into the lake, to be beyond the reach of currents carrying sewage, or some other method of sewage disposal must be adopted.

The question of sewage disposal is becoming more serious all over this country as the population increases, and various methods have been employed for this purpose. The following are the principal methods in use:

- (1). The sewage may be emptied without purification into a stream or large body of water.
 - (2). It may be partly purified by subsidence.



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- (3). It may be treated by one of the chemical processes.
 - (4). It may be purified by filtration.
 - (5). It may be used for broad irrigation.

In the purification of sewage the object to be accomplished is the destruction of disease germs, and the changing of the organic matter to inorganic.

While any foreign substance is objectionable in drinking water, it frequently happens that the impurities which are most evident, are not the most dangerous. Water may be very roily, and seem unfit to use, and yet be much safer to drink than water from another source which looks clear and sparkling. That which is most to be dreaded in drinking water is the disease producing micro-organisms which abound in sewage. Many of the most dangerous diseases are produced directly by the bacteria which are now poured out into the lake by millions.

When sewage is discharged into a stream or large body of water, part of the solids are deposited on the bottom and shores, part of the organic matter is destroyed by oxydation and nitrification, and part becomes food for plant and animal life.

Where the amount of sewage is quite small the evil results may not be very manifest, excepting in the sick list of those using the polluted water; but when the amount of sewage is large, the results are such as is seen in the Cuyahoga river, and along the lake front of Cleveland.

When the attempt is made to purify the sewage by subsidence, the sewage is retained in settling tanks until a considerable part of the solid particles settle to the bottom, and it is then allowed to flow out into a stream or lake. Very little is accomplished by this treatment, as the effluent is quite as bad as the sludge which settles to the bottom.

There are scores of methods for chemical treatment. The object aimed at in all of them is to precipitate by chemicals more of the organic matter in the sewage than can be done by subsidence, and to bring about some chemical changes in the sewage. Usually a flocculent mass is formed by the chemicals, and a considerable amount of suspended matter is carried down with it.

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The effluent is not quite so bad as from the tanks where no chemicals are used, but it is not fit to discharge into water which is afterwards to be used for a town water supply. The best methods for sewage disposal is either by intermittent filtration, or by broad irrigation.

In intermittent filtration, filter beds are prepared by underdraining the ground, so that the water which has passed through the filter may be carried by the drains to its outfall. Two or three beds are prepared, so that the application of sewage need not be continuous; but may alternate, and the beds be given time to absorb a new supply of air to assist in disposing of the organic matter in the sewage.

The size of the filter beds will depend upon the nature of the soil. One acre will dispose of the sewage of from 200 to 2000 people, depending upon the nature of the filter and its preparation.

For broad irrigation the land is underdrained, and the sewage applied so as to utilize it in raising crops. This has been done on a large scale by many cities,—notably, Paris and Berlin.

There was an idea held at one time by the advocates of this system, that it could be made to pay as a financial scheme; but experience has shown that the returns are not sufficient to make it a paying investment, from the purely financial standpoint. Under favorable circumstances it may nearly or quite pay running expenses, but nothing beyond that may be expected.

The results, however, from the sanitary standpoint, are perfectly satisfactory.

At Gennevilliers, where the Paris sewage is applied to the farms, the scheme has proven a great success. No bad effect has been produced upon the health of the inhabitants, as was predicted; the land has risen enormously in value; and splendid crops of cereals, vegetables, fruits and flowers are now raised for the Paris market on what was formerly a very poor soil.

The effluent water is clear and pure. A close watch is kept on the working of the scheme by officials appointed by the city, and daily records are kept of the effects of different methods of application, and of the results of the chemical and biological tests of the outflow.



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In purifying sewage by passing it through properly prepared soil, two desirable changes are effected. The suspended impurities are filtered out, and the organic matter in the sewage is destroyed by the bacteria in the soil. This process so purifies the sewage that the effluent water may be safely turned into any stream or lake. If the process was one of filtration only, the interstices of the soil would fill up, and the filter would soon be rendered useless. But by the action of the bacteria the organic matter is constantly decomposed, and the filter is kept in working order.

In fact, the action of the filter is not as satisfactory when first used, as it is when it becomes well filled with bacteria. Then, by properly alternating the application of the sewage, so as to keep the filter in good working order, the same ground may be used for an indefinite length of time.

The difficulty of treating the sewage of this city by any method, is greatly increased by the use of combined sewers, in which the storm water as well as the sewage is carried. In estimating the required size of a combined sewer for any district, the volume of sewage proper,—that is the liquid wastes,—is so small in comparison with that of the storm water, that it may be neglected entirely. This gives some idea, as to how much greater the flow of storm water is at times, than the flow of sewage proper at its maximum. A sewage disposal plant, which might easily provide for all of the sewage from a town, would be literally swamped by the flow of water during a storm, if the sewers were combined sewers.

One method of avoiding the deluge of water at the disposal plant during a storm, is to so arrange an intercepting sewer, that the ordinary flow of sewage would be intercepted and carried to a disposal works, while the excess of flow during a storm would be carried by an overflow to the natural water courses.

Of course provision can be made for all of the flow from combined sewers, but it increases the expense enormously, and rain water does not need the same amount of filtering as the sewage from dwelling houses and factories.

Of these methods of sewage disposal, Cleveland has tried but one. The crude sewage has been discharged into



Disposal in Cleveland.

the Cuyahoga river and along the lake front, until the same problem has arisen as at Chicago. For which of the two purposes shall we use Lake Erie in our vicinity? We can not adopt the plan employed at Chicago. The flow of the Cuyahoga can not be reversed as easily as the Chicago river. The high range of hills to the south renders that method impracticable.

If it is desired to dispose of the sewage without any attempt at purification, and to discharge it at such a distance away that it will not affect the water near the city, intercepting sewers must be put in along the river valley and lake front, and the sewage be pumped to an outlet along the lake somewhere to the east. The selection of a place for the outfall for the sewage in this case, will not be an easy task. The people living along the lake shore will be sure to object to having the lake in their locality made a cess-pool for the convenience of the citizens of Cleveland, even if they themselves do not use the lake as the source of their water supply.

It is an easy matter to say, "discharge the sewage into the lake so far to the east that it will not affect the lake front here," but when the particular point for the outlet has been selected, then the trouble will just begin.

If the sewage be first purified, there would be less objection, and the objections would grow less as the efficiency of the purification increased.

Simple sedimentation is of very little practical use excepting in connection with one of the other methods. Chemical treatment is expensive and unsatisfactory. There remains, then, the methods of disposal on the soil, either by filter beds or broad irrigation.

The choice before the citizens of Cleveland is, whether they will move the intake of the water works so far away that the water can not be contaminated by the sewage, or will provide for the disposal of the sewage by one of the methods of filtration.

The determination of just what ought to be done is no easy task. Much careful investigation is necessary to obtain the needed data upon which to found an opinion which will be worth considering. Methods and opinions evolved out of the inner consciousness of individuals who have not care-



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fully studied this particular problem, or have not the necessary skill to use data properly, are not likely to be of much value, and if acted upon, are quite sure to lead only to failure.

The currents in the lake must be carefully examined before any decision can be arrived at, as to where the intake for the water works may be placed with any degree of safety.

It would be folly to do as has sometimes been done in similar cases—to hastily adopt and carry out a plan which is no sooner completed than it is seen to be a failure, and must be abandoned as soon as possible.

The proper consideration of a plan for sewage disposal by intermittent filtration or broad surface irrigation, will include the location of the necessary land, and the accessories needed to carry out the enterprise. To find the proper location for a filtration plant, or a sewage farm near a city, is not an easy task, and demands intelligent investigation, and sound, trained judgment in the final decision.

Suppose, after careful consideration, it be decided to move the intake of the water works far enough away to be out of danger of sewage pollution in the near future, and the pressure for a change of the sewage outfall be not urged on that account, will Cleveland continue to use the river valley as a cess-pool?

As the city increases in population, the amount of sewage increases, and the condition of the river and harbor will grow worse and worse.

Much interest has been shown lately in the question of the improvement of the river, and of its need of improvement in more ways than one there can be no doubt; but one of the first things to be improved should be the condition of the water. To make larger pools for retaining decomposing city sewage, is simply to engage in the culture of disease germs on a larger scale, and invite epidemics in various forms.

There are two sanitary problems in Cleveland which are pressing for solution. The one is—how to provide pure water; and the other—how to get rid of the water after it has been soiled.



PROBST: Public Water Supplies.

While, owing to local circumstances, the two questions have been somewhat mixed—disgustingly so at times—they are in reality two distinct problems, and neither can be safely disregarded.

PUBLIC WATER SUPPLIES IN THEIR RELATION TO PUBLIC HEALTH.*

BY C. O. PROBST, M. D.

(Secretary Ohio State Board of Health.)

Mr. President :-

In the early settlement of this country, the finding of a living spring of pure flowing water frequently determined the location of a future village or city. In all times there has been common knowledge that pure water is essential to health. Nature has kindly looked after man's wants in this direction, and has filled the ground with water and prepared a filter in the upper layers of the earth to remove all impurities from it. We still find in wells and springs, when unpolluted by man, perfectly pure water, cool and refreshing to the taste, and free from germ life. In cities the soil becomes overburdened with filthy matters; cess-pools and vaults-abominations which common decency should never have allowed, -abound, and the wells become polluted and dangerous to use. Increasing demands for water finally lead to the introduction of water works, and a convenient river or lake is made use of to furnish the supply. Vast quantities of filthy substances are washed into the rivers, and carried to the lakes, but still nature's protecting hand, by a series of changes, chemical and biological, converts these substances into harmless inorganic compounds. But as there is a limit to the purifying properties of the soil, so is there also to that of water, and a time comes when the rivers and lakes, especially near the sources of their pollution, no longer afford a safe water supply. Such is the condition of many cities to-day.

*Read before the Cleveland Medical Society.



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When this time comes for any city, one of three things must be done, if any regard is to be had for the life and health of her citizens. First, to stop the pollution of the water supply; second, to purify it; or, third, to secure a new and purer supply. Often the greatest safety will lie in adopting two of these measures—to protect the water against pollution as far as possible, and in addition to purify it.

What evidence is there that impure water may cause disease? We have it from Mark Twain that many a man has come to an untimely end by using bad water—in his whiskey; and the list of diseases which have been attributed to impure water is quite a long one.

It was formerly believed that the presence of decomposing organic matter in water was the chief element of danger. We still measure the amount of dead organic matter in water, not so much because it may itself possibly produce disease as for the reason that water rich in such substances—especially when of animal origin, as from sewage,—is very liable to contain *living organisms* of microscopic size, which are the real source of danger.

River and lake waters usually swarm with germs or bacteria, a glassful often containing millions of them; but this need not alarm us, for all of these may be harmless. Indeed they are usually beneficial, for these minute growths that ordinarily inhabit water are true scavengers, removing from the water much of this dead organic matter, which is objectionable, if not dangerous. We shall have a true idea of bacteriology if we consider that the unseen part of the vegetable kingdom—these bacteria—are comparable to the visible part of vegetation. There are a few poisonous plants which man must destroy or avoid. So there are a few of the many different species of bacteria which are pathogenic or disease producing, and these we must also destroy or avoid.

The list of disease producing bacteria which get into water is not a very long one. Dr. Sternberg describes sixteen, while Professor Frankland, in his late work on microorganisms in water, enumerates twenty-three species of such bacteria. Most of these are only rarely present in water, and so far as we now know there are but two diseases



In their Relation to Public Health.

which can be properly called water borne diseases; these are Asiatic cholera and typhoid fever. It is highly probable that diarrhæa and dysentery are frequently conveyed through the water supply, and a few other diseases may be, but these will not now be considered.

Cholera possibly may be thought to be of little moment as it so seldom prevails here; but it has recently been knocking at the Golden Gate on the Pacific; and it may be laid down as a rule that any city suffering from a high typhoid fever death rate, due to a polluted water supply, will be in very great danger if cholera should pay us a visit.

Time will not permit of producing all the arguments advanced to prove that typhoid fever is usually a water borne disease, but it may be accepted that a very large majority of all cases are contracted in this way.

It is in fact laid down as a rule that the number of deaths from typhoid fever in any city is usually a fair measure of the purity or impurity of its water supply. This makes the study of typhoid fever of the greatest importance in connection with public water supplies.

It will not be amiss, to clearly understand the subject, to briefly consider the specific cause of typhoid fever. It is the belief of physicians and bacteriologists that the excreta of a person suffering from typhoid fever contain a microorganism which is capable of producing the same disease on gaining access to the intestinal canal of another person. It is highly probable that it does not always produce disease, when swallowed, and that a certain but unknown number of these organisms must be taken into the system to cause sickness. The typhoid bacillus, as might be inferred, finds in the body the conditions most favorable for its growth. A question of very great importance is, will it live outside of the body for any length of time, and if so, will it grow and multiply, so that a few germs getting into water may produce many? This question cannot be positively answered. It is probably true that under certain conditions-mostly artificial-this germ may multiply outside of the human body, but there is reason to believe that this seldom takes place, and especially in surface waters such as lakes and rivers. But while they do not ordinarily multiply they un-



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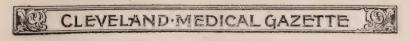
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doubtedly may live some time in water, milk, or in the soil. They have been found in ice, so that freezing does not destroy them. Experiments made at the Lawrence, Mass., Experiment Station proved that they existed for twenty-eight days in unfiltered Merrimac River water. We may state positively that when the germs of typhoid fever gain access to a supply of drinking water they may live and remain active for at least two weeks—a period sufficient in many cases to produce serious mischief.

It is easily understood how water supplies become contaminated with typhoid fever germs. They get into wells by leachings from cess-pools and vaults, or by surface washings, and into rivers and lakes by the sewage discharged into them. This pollution may be temporary, resulting, possibly, in a great and sudden outburst of the disease, or it may be more or less continuous, and one might almost say premeditated, in view of present knowledge, causing a continuously high death rate from the disease. A familiar example of the former is the epidemic which occurred at Plymouth, Pa. Here the stools of a single case of typhoid fever, washed by melting snows into the city's impounding reservoir, resulted in 1104 cases of the disease and 114 deaths. Examples of the other kind, of the more or less continuous prevalence of typhoid fever due to drinking a sewage laden water, may, unfortunately, be found on all sides.

First, that we may have a basis for comparison, let us consider the prevalence of typhoid fever in a few of the cities which have a naturally pure water supply, or one which is purified by artificial means.

In 1893, London had 719 deaths from typhoid fever, which equals 17 per 100,000 inhabitants. London obtains its supply almost entirely from the Thames and Lea rivers, both of which are subject to pollution; but all this water is filtered, and repeated examinations have shown that nearly 99% of all micro-organisms in the river water is removed by the filters. Berlin in the same year had 161 deaths from typhoid fever, or 9 per 100,000 inhabitants. Berlin is also using a dirty river water supply, but filters it, and removed on an average 99.6% of all bacteria during that year.



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Vienna, using pure spring water, had but 7 deaths per 100,-000 inhabitants from typhoid fever in 1893.

Taking some of the cities of the United States for the census year 1890, when the population is known, and we find in a list of 50 of the largest cities not one with as low a rate as even London with her 17 per 100,000 population. Allegheny City, which we know has a badly polluted water supply, had 217 typhoid deaths per 100,000 inhabitants. New Orleans is at the other end of the list, with but 19 per 100,000. Looking to Ohio, where our greatest interest lies, and we find 25 for Dayton, with a water supply from wells, 39 for Toledo, with water from the Maumee River, 43 for Columbus (and a part of each year our water supply is badly polluted), 51 for Cincinnati—where I suspect few people drink water, other beverages being so abundant and the water so bad,—and 63 per 100,000 inhabitants in your own City of Cleveland.

But it is hardly fair to judge this matter from a single year, when exceptional conditions may have been present in one or the other of these places. Taking a seven year period ending with 1894, and the reports of deaths made by the local boards of health, and we find, stating the matter in another way to avoid questions as to increase of population—that in Toledo and Dayton 1.99 and 2.02 per cent respectively, of all deaths were due to typhoid fever. In Cincinnati it was 2.78 per cent, in Cleveland 2.97 per cent, and in Columbus, to our shame be it said, 3.87 per cent of all deaths in that time were due to typhoid fever. Two thousand eight hundred and eighty-two deaths have occurred from typhoid fever in these cities in the past seven years. And this is not all of it, for undoubtedly many people who contracted the disease in these places died elsewhere.

Many authorities tell us we should multiply the deaths by ten to arrive at the number of cases. That is, that about one in ten of those who have typhoid fever die of the disease. Doing this and it appears that we have had about twenty-nine thousand cases of typhoid fever in Ohio's five largest cities in seven years. If, as we believe, fully three-fourths of these cases could have been prevented by furnishing the people pure drinking water, is it not time that ways



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and means were found to guard against this needless sacrifice of life and health?

Let us look at one or two examples showing how this may be done, and which at the same time strengthen the claim that typhoid fever is a water borne disease.

Prior to 1893 the water supply of Chicago was notoriously bad. During a part of the time a portion of the supply was taken from a short tunnel into Lake Michigan, known as the shore inlet, and intended for fire emergencies only. This supply was badly polluted by sewage from the Chicago River, as was also, at times, a supply obtained from a crib farther out in the lake. In the year 1892 there were 1489 deaths from typhoid fever in Chicago, or 103 per 100,000 inhabitants. In December of that year this shore inlet was closed and a large part of the supply was taken from the new four mile tunnel. In 1893 there were 41 per 100,000 inhabitants and in 1894 but 31, which was 2.05% of the deaths from all causes, the lowest rate in any year since 1851.

The city of Frankfort, Germany, affords a striking example of what may be done by engineering works in reducing the deaths from typhoid fever. Prior to 1867 the city was using a badly polluted water supply and was practically without sewerage. The yearly deaths from typhoid fever ranged from 100 to 110 per 100,000 inhabitants. Sewerage works were commenced in 1867, and a pure water supply was introduced in 1872. In 1875, when 52 per cent of the houses were joined to the new water supply and 43% of the houses to the sewers, the typhoid fever deaths had fallen to 42 per 100,000 inhabitants. Ten years later, when 84% of the houses were joined to the new water supply and 77% to the sewers, there were 13 deaths per 100,000 from typhoid fever; while for 1893, 98% of the houses being supplied with pure water and 96% connected with the sewers, there were but 4 deaths from typhoid fever per 100,000 inhabitants. You will note that for each period the per cent of decrease of typhoid deaths corresponds closely with the per cent of increase in the use of pure water.

It has already been noted that Chicago was able to reduce her typhoid rate by more than 60 % by going farther



In their Relation to Public Health.

into the lake for water. Examples can be given to show that equally good results may be obtained by the artificial purification of a polluted water supply; and it is fortunate that this is so, for many cities are unable to secure naturally pure water.

Lawrence, Mass., is on the Merrimac River, which receives the sewage of Lowell only nine miles above. Both cities have suffered severely from typhoid fever, and an epidemic in Lowell always meant an epidemic in Lawrence. Both cities used unfiltered Merrimac River water. In Lawrence, for five years prior to the introduction of filtered water, the average annual number of deaths from typhoid fever was 127 per 100,000 inhabitants. Since September, 1893, all the city's water has been purified by sand filtration, and in the year following the typhoid deaths dropped to 13 per 100,000, a reduction of 60%. Lowell during that time suffered from an epidemic of typhoid fever, and infected sewage must have been discharged into the river only nine miles above Lawrence's filter beds.

I cannot refrain from citing an example, though it must be familiar to many of you, which shows in the most striking manner the difference, with respect to the production of cholera, in those using a pure and an impure water supply.

Hamburg and Altona both obtain public water supplies from the river Elbe, Altona at a point seven miles below the discharge of the sewage of both cities, and Hamburg seven miles above. Elbe is a tidal river, and sewage is undoubtedly at times carried to Hamburg's water intake. The cities are practically one, separated only by an imaginary line. The people were living under the same conditions, except that the citizens of Hamburg were drinking unfiltered river water, while the water for Altona was filtered, when the last cholera epidemic made its appearance in Hamburg; nearly seventeen thousand cases and over eight thousand deaths occurred from the disease in Hamburg, or over 26 cases for each 1,000 inhabitants. In Altona, where the water supply, except for filtration, was infinitely worse, receiving all of Hamburg's sewage and its own, there were less than 4 cases per 1,000 inhabitants. Prof. Koch, who investigated this epidemic to determine the efficiency of



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sand filtration of water supplies, reported that nearly all of the cases in Altona had been contracted in Hamburg, and that the filters had proved an efficient barrier against the disease.

There is another lesson to be learned from Hamburg's experience. The health authorities had repeatedly called attention to the danger of using such a water supply, but the matter was allowed to drag along until the year 1891, when the construction of filters was commenced. But the cholera came in 1892, before the works could be completed, and nearly ten thousand citizens paid the penalty of this procrastination with their lives.

Bringing this question home to the city of Cleveland, it is apparent that the present water supply is far from what it should be, although other cities may be worse off. But you are to be congratulated on having now taken steps to secure purer water. Each of you should feel that the purest water that money and engineering skill can obtain is none too good for a Clevelander.

London, though having a filtered water supply of much greater purity than that of most American cities, is seriously considering the expenditure of thirty-eight millions of pounds to secure still better water. Boston has accepted plans and estimates calling for thirty millions of dollars for a larger and better water supply. Whole villages will be bought and removed from the water shed in order to preserve the water's purity. Cleveland, with a perfectly pure water supply, and the satisfactory disposal of her sewage, will have cast off a very great impediment in her progress towards becoming the first city of the lakes.

Permit me to add one word as a representative of the State Board of Health. In 1893 the Ohio Legislature enacted a law providing that no city or village should introduce, change or extend a public water supply or sewerage system without the approval of the State Board of Health. This act is in line with what has been done in Massachusetts, New York, and Minnesota, but is far short of the powers conferred upon the boards of health of the two former states. The intention of the act is obvious, and its proper enforcement will tend largely to prevent arising the deplor-



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able conditions now existing in many of our cities and towns. In some instances the Board has perhaps appeared at first sight in the light of an obstructionist to needed public improvements, but I can say with the greatest sincerity that in all its acts it has been guided by the sole desire to give the people the best attainable conditions for the preservation of health.

GENERAL SANITATION.*+

BY COL. GEO. E. WARING.

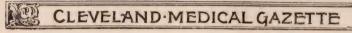
Sanitary Commissioner of New York City.

Mr. President and Ladies and Gentlemen; I am sorry to have to begin my remarks this evening by qualifying the high compliments paid to me in your program. It is a matter of deep regret that I have to say that I have never had any connection with the United States Engineer Corps; and in New York I am not Commissioner of Public Works, but only Commissioner of that Department that has charge of the cleanliness of the streets.

It will be my effort to condense within the limits of your patience a very brief consideration of some of the more important points of the broad topic on which I have been asked to speak. "General Sanitation" is indeed a very broad topic. Its bearing begins with birth, and does not end until after complete dissolution has followed death. Sleeping or awake, working or at rest, living or dead, the human body is never exempt from influences which it is the office of the sanitarian to control, to modify or to counteract.

To sketch the mere outline of general sanitation would take more time than we have at our command. There are, however, some fundamental principles underlying the whole subject, which it may be useful for us to review; and underlying these principles we find the constantly recurring phenomena of organic life, death, decay and new life. On all these practical sanitation hinges. Sanitary problems in fact should be studied under the wonderful light that recent discoveries in biology have shed over our path, a path which

*Read before the Cleveland Medical Society, Sept. 27th, 1895. †Reported by J. S. Cadwalader, Stenographer.



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was very obscure even twenty years ago, and which is still far from being so illumined that we can walk without stumbling; but stumble as we may, we can now see whither we are going, and we know that our feet are on solid ground.

Life, as we know it, begins with the assimilation by plants of inorganic, or mineral, or elemental matter, stored in the soil, dissolved in water, or floating in the air. The plants thus formed may die and decay, or they may furnish food for animals. While they are under the dominion of the vital force, they remain practically unchanged. Their substance is in a state of rest and preservation. Animal life on the contrary is a condition of constant change. What we know as the body is only a fixed *form* of moving matter. The body of to-day is not the body of yesterday. If the movement and change of its constituents cease but for a moment, life leaves it and dissolution begins.

Huxley, in his treatise on the Cray Fish, which is really a treatise on the study of biology, describes the manner in which food flows into this organism, takes the place of parts of the organism itself, and flows with the refuse matter out of it. He compares it to the great whirlpool below Niagara Falls, which for centuries has been unchanged in its form, its action, its effect and its consequences, but which is never for one moment the same. Water is constantly flowing in at one side and flowing out at the other.

When the water leaves the whirlpool, it passes on in an uninterrupted stream on its way towards the sea, to which all waters seek their way. While we live we hold the current of matter that is moving through us in the form and condition of the unchanging body, the form and condition remain, the matter moves inexorably on. When death comes the human whirlpool disappears, and as the flow of matter becomes freed from the conditions life had temporarily placed upon it, it too passes on to the store of inorganic matter, from which it had been taken by the growing plant, from which plants may take it again and again as long as life lasts on the earth.

Sometimes arrested, but never stopped, this stream of matter goes on and on. It is sometimes caught in an eddy,



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as in the more slowly changing parts of the body, and it is sometimes stored in a pond, as when forming a part of wood or grain, but sooner or later it is released from the control of the vital forces, and it is again resolved into its mineral elements.

It is solely with incidents resulting from these changes of the condition of matter that sanitation, as it is distinguished from hygiene, has to do.

The storing up of matter in the vegetable structure does not come within our present purlieu, and our interest in what goes on in the animal structure is mainly confined to the contamination and infection to which matter may then be subjected.

What does concern us most vitally is that which takes place in organized matter on which life has let go its hold and which enters a state of decomposition.

Hardly more than twenty years ago, Schloessing in France, found that when sewage was passed through a sand filter, under suitable conditions, it was purified. But he also found that when chloroform was introduced into the filter, the purification ceased, beginning again when the chloroform was washed out. This was the best of the early proofs that the destruction of organic matter is effected by living organisms. Proof has been added to proof, and demonstration to demonstration, until we now know that all organic decomposition is the work of minute living organisms. These are known by the generic term of bacteria or microbes.

For a time bacteria were supposed to be the bane of human life, and we are still prone to consider them mainly in the light of disease germs. The fact is that without them all life would cease, and while the communicating agents of specific diseases belong to the general class of microscopic organisms, these are very exceptional, and there is much reason to think that those organisms which, in the presence of air, effect the decomposition of organic matter, are their worst enemies. It seems indeed certain that the germ of typhoid fever, for example, can not live in the presence of active organic decomposition which is going on with full exposure to the air. There is no instance recorded of



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the communication of typhoid fever or cholera or any other diarrhœal disease by the exhalations of a sewage farm or by the water flowing from its under drains.

The bacteria scare, if we may so call it, seems to have taken a very fast hold on the human mind, and I notice constantly in my work in New York that the criticisms are very apt to take the form of the statement that the dirt between the stones of the street pavements is stored full of the germs of disease, only waiting for the wind to come and blow it into the houses, or if the sweeper is used without sprinkling the streets, to stir it up. It seems nothing can be more unlikely than this. Matter exposed to the air and oxydizing decomposition, even if it had been infected, which is generally doubtful, would be rendered harmless as a result of the complete destruction of the infecting germs along with the organic matter of the accumulation itself.

To illustrate briefly the effects of bacteria in our work, I have taken the liberty of saving your time and mine by bringing a statement that I wrote not very long ago referring to the subject.

At Lawrence, in Massachusetts, since 1886 the state board of health has been carrying on experiments in the purification of sewage by filtration through various materials and under various conditions, which have resulted in a very great addition to our knowledge of the subject and which are recognized not only here, but all over the civilized world. Dr. Brown and Mr. Hazen, the chemists of the establishment, make this statement of the manner in which sewage is purified.

The organic matters which give sewage its distinctive character are seldom present in sewage in cities having abundant water supply to the amount of one-tenth of one per cent. That is to say, in a ton of sewage there are about two pounds of organic impurities, yet it is this small amount of organic matter which, by reason of the putrefactive changes which it is capable of undergoing, make it repellant to the senses and cause, either directly or indirectly, its power of producing disease. The process of decay in organic matter involves the formation of many intermediate products. It is dependent on the life of micro-organisms. Though the supply

of oxygen may be unlimited, such oxydation does not go on in nature without these micro-organisms. The transformation of nitrogen ferments * * through its subsequent changes to that of nitric acid in nitrates, is effected under the conditions favorable to the activity of microorganisms in the presence of oxygen, as is well shown in the case of the filter tank at Lawrence, which was filled for a depth of five feet with coarse gravel, none of the stones of which were less than three-fourths of an inch in diameter and none more than one and one-fourth inches. These stones had been washed clean. Sewage was applied daily in such quantities as would cover the stones without occupying the air spaces between them.

Concerning this experiment, Mr. Mills, of the Board of Health, who had charge of the experiment, said: The experiments with gravel stones give the best illustration of the essential character of intermittent filtration of sewage. Notice, that without straining the sewage sufficiently to remove even the coarser particles, the slow motion of the liquid in thin films over the stones causes to be removed, after some months, 97 per cent. of the organic matter, a large part of which was in solution, as well as 99 per cent. of the bacteria which were, of course, in suspension. The essential conditions are, very slow motion of very thin films of liquid over the surface, the particles having spaces between them sufficient to allow air to be in contact with the films of liquid. With these conditions, it is essential that certain bacteria should be present to aid in the process of nitrification. The conditions just mentioned appear to be most favorable for the efficient action and, at the same time, the most destructive to them and to all kinds of bacteria that are in the sewage.

Concerning the safety of the water of the effluent as a drinking water, Mr. Mills says: We have found that the sum of the ammonias, which has been taken to indicate the amount of nitrogenous organic matter, has been reduced to about one-half of one per cent., and is less than the sum of the ammonias in most of the public drinking water supplies of the city. Prof. Sedgwick, the bacteriologist of the Board, says: The simplest theory of the working of any filter is

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that its action is mechanical. This primitive idea, however, does not apply to filters which we are now dealing with in this report. A field of sandy soil may, it is true, be a very effective strainer, but if worked intermittently, it is much more so. A mere strainer soon clogs, its value is lessened, and it must be cleaned. When sewage began to be applied to the several tanks outside the station, even the most intelligent of the workmen predicted that they would become a nuisance, but after two years of actual operation nothing more objectionable could be seen than on other fertile land, and this apparent condition was confirmed by the result of analysis. And the mechanical theory is readily disproved by comparison of the chemical composition of the effluent with that of the affluent.

In the life history of the intermittent filter, there may be a period at the outset when there is little more than mechanical purification; but after the best conditions are established, dissolved organic matter no longer passes out as it came in, and the suspended matters, for the most part, cease to accumulate, and both appear in the affluent under other forms. Obviously mechanical processes alone could not effect such a change. And besides, these changes may occur under conditions which exclude entirely the purely mechanical.

The conditions here referred to are well illustrated in the experiment with large gravel stones, and by another in which the filtering material was entirely of gravel stones of the size of beans. All the stones had been washed so that no sand adhered to them. They formed a bed five feet in depth, and for nine months sewage was applied nine times a day for six days in the week in a quantity equivalent to 81,400 gallons per acre per day. The quality of the affluent varied somewhat, but during the last two months, June and July, after the above quantity had been applied daily for more than seven months, 98.6 per cent. of the organic matter of the sewage was removed by being turned into nitrates and more than 99 per cent. of the bacteria were killed. The foregoing results were so satisfactory that the quantity was increased by applying the same quantity hourly for fourteen hours instead of nine hours. The quantity then



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applied was equivalent to 121,000 gallons. This quantity was continued for three months, until October 24th, 1890, with very little change from the results previously obtained. We still find 98.5 per cent. of the organic matter is removed and 99.6 of the bacteria were killed. This result was so satisfactory that the quantity was still further increased in November. The water flowing out at the bottom of the filter appeared as a clear bright water, comparing favorably in every respect with water from some of the wells of our cities.

Now let us consider for a moment the application of this principle to the destruction of organic matter in suspension in water by the various processes of irrigation or sewage farming, or surface flooding and of intermittent filtration.

In irrigation, or sewage farming, there is a very easy road to failure. But with proper arrangements and with careful management, which is not difficult and which requires no skill to control, success is absolute and universal within certain limits if land of proper character be used. the disposal of sewage, we have, all of us, before our eyes, especially when we go to the country, an instance of what is really an ideal method of getting rid of dirty water, that is the flirting of the pan of dish-water over a grass patch. If this is done, as it is so often done, by lazy, thoughtless or ignorant people, that is, if the water is thrown always in the same place, it produces a sodden condition that prevents the entrance of air into the ground, and it becomes very offensive, but if a panful is thrown here this morning and there to-morrow morning, so that there is never saturation, the result is always as good as it possibly can be, and ideal sewage farming ought to take its keynote from the daily development of that domestic practice.

If the farm is so situated that irrigation is not properly carried off, if it is so arranged that water runs in rills or stands in pools, and if the flow is continuous over a single tract, or if intermittent discharges are over the same place, it gets most foul and offensive—dangerous, I hardly think, unless it gives rise to malaria—but foul and offensive, and every way objectionable. But with the single precaution of

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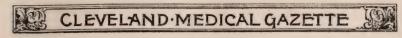


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grading the land so that there will be no ponding, arranging for the distribution over a wide area, so that between applications it shall be drained out, preventing the accumulation of sewage at any point, we are sure to get satisfactory, and with decent management, economic results. There is not very much of that work in this country. There is a great deal of it in Europe. The enormous farms, of which there are six or seven surrounding Berlin, so far as I know, are all in successful operation; and what is a better showing, they are not only paying cost of running them, but a modest interest on the construction.

In 1890 I was called to make arrangements for the disposal of sewage of a little town called Wayne, about twenty miles out of Philadelphia, a suburban place, belonging to Mr. Drexel and Mr. Geo. W. Childs. They had been going on for five or six years, until finally land below them, down a little stream, had become so valuable, and been taken up by country residents, that injunctions were threatened, and it became necessary to do something. All the land they had about them was a tract of eleven acres, about half of it a mill-pond and swamp, and the other half a steep, wooded, hill-side. The amount of sewage to be taken care of at that time was over 2000 gallons (?) a day, and it was very clear that the amount would be increased rapidly. It was arranged that the sewage should be turned on three different tracts, on alternate days. They were allowed to turn the sewage onto it under protest, the citizens threatening to bring suit. The people down the stream took the same position. We turned the sewage onto that land in 1891. It has now been going for four years. The State Board of Health made its examination, and was entirely satisfied. The people found that the water was purer than it was before, because the water flowing from the sewage was purer than the natural run of the stream. It was spoken of before as "Childs' sewage farm." That name soon passed away. One of my assistants met a resident of Wayne, who praised it in every way, "but," he said, "the real thing that you ought to see is our sewage park; it is lovely; everybody goes down there Sunday."

I have spoken with a little view to the possible condition



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here. * * I believe that here, if you had a reasonable amount of land, on the lake shore or elsewhere, where there was good drainage, over which your sewage could be run at a rate of a half million gallons per acre, per day, alternately, one day after another, I believe that would remove a great deal more of the impurities of the sewage—remove it much more cheaply and inoffensively—than any process of chemical precipitation that I know anything about.

Chemical precipitation means the ponding of sewage in tanks, where it is mixed with lime, or some other coagula, that gathers together all flocculent matter, and as that matter settles, catches other matters with it, forming at the bottom of the tank what is called "sludge." I think one reason of its popularity is that it is a concrete, tangible thing. * * I have never seen one that seemed to me a good sanitary arrangement. The water does not at all stand the test of chemical examination, for while it takes out all the solid matters in suspension, and so leaves it clear and limpid, it leaves in it all the soluble matters, so that it becomes offensive in warm weather, and is always a suspicious condition.

Intermittent filtration is simply an extension, on a large scale, of the filters that I have described as being in use at Lawrence, Mass. They are being extended in the East quite materially, and have everything to recommend them, except that they are costly, and require a certain amount of attention; better than the process of flooding or chemical precipitation.

I should like to mention an experiment made last year, in Newport, R. I., for five months, from May to October. We had large tanks, six by six feet, filled with stone, or coarse gravel, in four different courses, so arranged that the sewage passed into the center to the bottom, and rose up through the outside, flowing off at the surface. The velocity of the stream passing through, was not more than four or five inches a minute. It was practically still, so that all of the solid matter of the sewage, everything that was in suspension, was deposited on these stones. The water flowing away seemed clear, but, by holding it up to the light, we could see an opanescent look. It had some odor. We continued



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that process for about a week—once for three weeks, without there being much difference in the results. At the end of that time, we drew the water off, and, of course, air flowed down. The theory on which this was conducted, was that the sludge was full of the bacteria of decomposition, and all they needed was a good supply of air. By the use of the fan blower we gave them more air, and to the full depth. In sewage farming, it is only the first six or eight inches that is affected, but here we had ample air all the way through. The result was that in five or six days, always less time than was used in depositing this matter, the sludge was all gone and the stones were perfectly clean. We kept that up without intermission, on one or the other of these plants, for five months. At the end of that time we took the work down, to set it up at Providence. When those stones were taken out, they could not be distinguished from the original stock, except that in the fractures of the stone there would be a little trace of oxide of iron.

I would ask now to read you a very little about some general considerations. As to sewage disposal. The sewerage of towns and draining of important buildings are now controlled by expert engineers, and they rarely fail to be done reasonably well. The economy of good plans is understood, and especially the vital necessity for good construction. In fact, it may be said that the adoption of excellent methods and plans for removing liquid waste from houses and grounds is becoming general. This, however, is only the first step in sanitary improvement. It is only the step of removal. It gets our waste out of our immediate neighborhood; it does not destroy it. It is now recognized that quick and complete removal is only the beginning of the necessary service, and that proper ultimate disposal is no less necessary. The organic wastes of human life must be finally and completely consumed. It is not enough to get them out of the house and out of the town. Until they are resolved into their elements, their capacity for harm and offense is not ended. It does not suffice to discharge them into a cess-pool, nor does it always suffice to discharge them into a harbor or into a water course.

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It has been suggested since I came here that it might be interesting to hear something about my own department and work in New York, the Department of Street Cleaning. It is rather an enormous affair which costs about three million dollars a year. We have employed about 2,200 or 2,300 men and 700 to 800 horses. After the service of sweeping the streets, removing the garbage and street sweepings and the ashes, where it is discharged onto scows-after that the cost of getting rid of it is about half a million dollars a year. Every street in the city is thoroughly swept every day. Most of the active business streets, like Third Avenue or Eighth Avenue, and many of the down town streets are swept twice a day. The streets of the most densely populated tenement districts are swept three times a day. Hester and other Streets, which are the push-cart markets of the Jew quarter, have a special treatment of their own. The carts go through those streets first in the morning and collect the mattresses that have been thrown out over night. It seems cheaper and easier to throw the mattress out of the window than to clean it. After this the Croton water is turned on and the streets thoroughly flushed down. After that those streets are swept four times, on Fridays five times, during the day. They are kept perfectly clean from a sanitary point of view, but within fifteen minutes after they have been cleaned, they begin to be littered up with corn husks, paper, cabbage leaves, etc.

Thus far the garbage has been collected in the same carts and from the same barrels with the ashes. I have stopped that. We found we could not dump those ashes, polluted with garbage, on lands about the city for filling in as we had hoped to do. The present practice of sending all of our waste out to sea and dumping it outside of the lightship, has got to be stopped because the tides and the winds carry a great deal of rubbish onto the beaches of Long Island and New Jersey. We are now advertising for proposals for the disposal of all our waste in some other way than by dumping at sea, and we are very curious to know what the result of the application will be. I am sure there will be a good many fancy schemes presented, but I do not know whether there will be anything that will be reliable.

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I fancy we shall have to go back and carry out a scheme on which we have been working for a number of months. It is a scheme for the entire separation of garbage from ashes; having the garbage handled by some process of cremation, or rendering, or reduction, or a combination of them all.

I see that the question of garbage disposal has been discussed here to a certain extent. I wish I were in position to throw a little more light on it than I can. I do not know enough yet to decide what I want to do, but I can give you some information as to what you ought not to do. My advice to you, if you are not suffering, would be to wait two or three months, when we probably shall be able to publish the results of experiments that we have been carrying on under experts, which will demonstrate, I think, that out of 25 or 30 processes we shall discard at least 22 or 23 as not being either practical or not effective. We asked last May for informal proposals in order to see what we could get done. These proposals were asked, not publicly, but only of those whose processes we had examined far enough to think it was worth while to look into. The reduction or utilization processes constitute about three-quarters of the whole number. The average price per ton for which we were offered to take charge of our garbage was about 55 cents. It ranged from a payment to the city of 10 cents per ton, to a payment by the city of \$1.16 a ton. The proposals for cremation ranged from about 60 cents a ton to \$1.85 a ton.

There is still another very important matter of wastes, that is, paper and rubbish of all kinds: old boxes, spring beds, canvasses, old iron, trunks, sofas; wonderful what a lot of sofas there are. All of those things have got to be kept out of the garbage, out of the ashes. They are not provided for in the law, for some reason I cannot understand, and they have got to be got rid of. We are now experimenting, in a rather promising way, with a crematory for those things. They are carried up on elevators with men sitting on both sides picking out things of value. We have had this going for only a few weeks, but the indications are we shall get more than enough to pay for it.



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There is one little improvement that we have made in the matter of collecting street sweepings. The prevailing custom is, as you know, to sweep the street dirt into piles and have a wagon come around and shovel the dirt into the wagon. If the wind blows, it is rather an offensive process. We tried in many ways to remedy the trouble. We have a number of steel buckets into which this stuff was shoveled. When the cart was full, it was covered and taken to the dump. We are now using this in an experimental way, but it has gone far enough to demonstrate the success of the plan. We have a very light truck of bicycle construction, ball bearings and rubber tires, which has a ring elevated about two feet above its platform; on that platform there is stood a bag open and turned over the ring, another loose ring put over to keep it so; the bag weighing only about 30 pounds. As a man sweeps up a shovelful of rubbish, he puts it directly into the bag. When the bag is full, it is tied and stood on the sidewalk. We have been using that now for more than three months, and everyone who has seen it or had to do with it, is very well satisfied with it. labor and is cheaper than the other method.

Among my memoranda I see this heading: "Water Supply," and a reference to a very expressive joke that somebody got off in connection with it. A full description of a filtering works that purified water and made it as good as the best spring water, was poured into the ear of an old water works expert, and after it was finished, he said: "That's all very well, but what we want in our drinking water is innocence, not repentance."

I was asked to say something about your problems here, so far as discharge of sewage and the sources of your water supply are concerned. I have concluded to do it, but with a good deal of reluctance. It is necessary to tell you that I have no familiarity with your conditions, but I do know them in their general aspect. It is a somewhat delicate matter for an engineer to comment on work which other engineers are engaged on. But I have been told that my audience would expect me to extend my remarks to cover the question of the protection of the public water supply, which now confronts your community. The expectation is a reasonable one.



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WARING: General Sanitation.

In problems of sanitary improvement engineering is only an incident. Two distinct things are to be considered: One is what to do, and the other is how to do it. Your experts are able men, and you may be assured that the how to do it will be pointed out in a clear and trustworthy way. Nothing will be recommended that is not supported by the most conspicuous methods of the best engineers. If you want the sort of works that London and Paris and other great towns have, you will be told the best way to get them. Whether or not you do want them, depends on the answer to the other question, what to do. This is a question, not of good engineering, but of good sanitary policy.

It is to be conceded, of course, that your intake tunnel can be extended so far into the lake as greatly to lessen, and for a time, to prevent the fouling of your water supply with the sewage into which that supply is constantly being changed.

It is also possible to build an intercepting sewer of such length as to carry its outflow to a distant point.

To provide in this way for the purity of your water will be enormously costly at the outset, and it will be still more costly to extend and enlarge such works when the inadequacy of present provision is demonstrated—as the inadequacy of two efforts in the same direction has been demonstrated at Chicago.

The best skill of the best engineers has, with an enormous outlay, given to London and Paris, magnificent sewerage works of world wide renown. Both of these capitals are now struggling again, at enormous cost, with the evils that these great works have created, while Chicago is surpassing them both in the magnitude of its remedial measures.

It seems safe to say that if Cleveland follows the example of these cities in her initial works, she will follow it also in her efforts for relief when the time comes.

The radical mistake there made was to increase the volume of sewage to be dealt with by the addition of floods of storm-water and of ground-water until the whole vast outpouring grew beyond the possibility of purifying control.

If the same mistake, already initiated here, is extended as has been contemplated, the same fate will await the future



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City of Cleveland. If you continue to pour your sewage into the lake, especially with the continued addition of storm water from your roofs and streets, you will some day have to face enormous evils compared with which your present ones are insignificant.

If we set aside the question of engineering methods and consider the sanitary one of results, it must be seen that the thing to do, if that thing is possible, is to keep not only your sewage, but all your filth of whatever kind entirely out of the lake, purifying all liquids before they leave your shores. That thing is possible and it can be accomplished at a practicable cost, probably for less than the cost of the huge works that will ultimately be required for any permanent system of storm water and sewage interception and tunnel extension. The first step to be taken is to adopt a separate system of sewage as completely as your present fixed conditions will allow. This should be followed by a complete collection and satisfactory disposal of garbage; by the universal use of water closets wherever sewers are provided, and by the disposal or distribution on shore of all night soil deposited where there are no sewers.

In my judgment this is what you should do. How you should do it I am not well enough informed as to your local conditions to say. I do know, however, enough to justify me in asserting that it is entirely practicable.

A separate system of sewerage has never been considered in a town of this size, but there is no reason why it would not be as applicable and as successful as in all other places where it has been tried; in one place, Alameda, Cal., to the extent of one hundred miles.

I would say very briefly that I had to do with the original application of the separate system in this country. In 1879, after the epidemics of yellow fever at Memphis, I was employed as an expert by the National Board of Health to aid them in finding some means of relief. After looking the ground over thoroughly I recommended that the old idea of taking storm water and sewage all together be entirely given up. I succeeded in converting the members of the Board and their other experts. The system has justified itself in every respect, not only in Memphis, but in

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a number of other places, some of them large and some of them small. And now no one raises the least question as to the efficiency and practicability of the separate system for small places. I believe there are very few places in the country where it would not be better to have the separate system of sewerage than the combined system. I know when the Memphis work was being discussed before the Sanitary Commission of Great Britain, Mr. Robert Lawrence, who was then President of the Engineering section and the highest authority on the subject in England, endorsed the suggestion and said he had always advised the adoption of the separate system wherever he could.

CLEVELAND MEDICAL SOCIETY.*

QUARTERLY MEETING, SEPT. 27, 1895.

The President, Dr. Wm. E. Wirt, in the Chair.

Afternoon Session.

DR. WIRT said: The Secretary of the Society is not here, so we can not have any business, as he has the books of the Society. I would announce that we have a meeting here at 7:30 this evening, and that the speakers are all here. In the afternoon it is difficult to get people to come out.

There being no business before the Society, we will take up the program. The first paper on the program is one by President Cady Staley, of Case School of Applied Science.

Science.

PRESIDENT STALEY read a paper on "The Water Supply and Sewage Disposal in Cleveland." See page 1.

C. O. Probst, M. D., Secretary Ohio State Board of Health, read a paper on "Public Water Supplies in Relation to Public Health." See page 9.

DISCUSSION.

W. J. Scott, M. D. This is my first appearance publicly for a good while. I may not be able to speak loud enough for you to hear. I do not know that I can say a word that would advance the argument that has been put forth here to-day. It is no new subject to me, and perhaps to many others, yet I desire to have these arguments im-

*Reported by Mr. J. S. Cadwalader, Stenographer.



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pressed upon us as a people, and that the people become familiar with the facts necessary for their understanding. The examples that have been cited, and the varied processes presented for purification of the waters, have been perfectly set forth in the preceding papers. Now, what shall be done? The purification of the water of the city, and the purifying of the atmosphere and surroundings of the inhabitants in that way, can be, and ought to be, accomplished; then our health may be increased, our death list will be diminished. A notable example of this comes to my recollection, from a report of the army in India. When that army was in encampment (or canton, as they called it,) low down on the river, their death rate, during the year, was about 10% from cholera and from the diseases that result from impure water and imperfect living. The government decided they would remove the canton further up the river. this was accomplished, the death rate was reduced to less than 1%.

It does not much matter if I keep my premises perfectly clean, and have my surroundings in perfect order; if my neighbor pollutes the atmosphere that I am compelled to breathe, then I must suffer in consequence of his neglect, and that is the condition that we are placed in all the time. So that the inhabitants must take it in hand, that everything shall be done for the public health and public hygiene as far as possibly can be accomplished. Clean out their back yards, do away with their wells and cess pools, and take as pure water as they can get. The city water is better than well water in Cleveland to-day, although it is bad. We have better water than half the towns in Ohio. We must look at these questions individually. It is everybody's business, and I was in hopes that this meeting would be a large one, so the people could begin to think on these subjects, and profit by them. President Staley's paper gives the manner and process of proceeding in the purification of our waters, in a concise, able article, worthy of the best

consideration of the inhabitants of this city.

D. H. Beckwith, M. D. (Abstract.) I regret that my time is limited to speak to you to-day, for pure water supply and garbage disposal are two important subjects to discuss. A great city must have pure water supply, good drainage, and a practical method of properly disposing of the garbage. The boards of health of this city for the past 20 years have endeavored to have better sanitation. In June, 1887, the board of health of this city secured the services of Prof. A. W. Smith, of Case School of Applied Science, to take



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specimens, and ascertain if possible the different currents of the lake. Fourteen samples were taken, and analyzed, and presented to the board, which, upon examination, proved quite different in analysis, but of such a quality that it was considered quite good table water. These specimens also proved that the waters of Lake Erie were not so bad at that time as many of the people supposed. During the past eight years the waters of Lake Erie have become more polluted by the increase of population and the innumerable factories and industries that have been established all over the city; while the lake has not increased in water supply, but rather diminished. It is a fact that every citizen of Cleveland must admit that we should have better water supply. We welcome the day that public opinion demands a better water supply, but I must say that I firmly believe that the waters of Lake Erie are not so contaminated to-day as many people suppose them to be. To prove this assertion to be true, I have consulted the records of the Board of Health, which show less typhoid fever. The last report of the Health Officer shows death rate was 17.43 per thousand. From the statistics at the Health Office, in the year 1884 there were in this city 121 deaths from typhoid fever; in the year 1894, 89 deaths from typhoid fever. In the year 1884, 143 deaths from diphtheria, and in the year 1894, 107 deaths; which, you will notice, shows less deaths from typhoid fever, and less deaths from diphtheria, by quite a large per cent. the last year than there was ten years ago. In Cincinnati, during the cholera season of 1849-50, there was less mortality among those drinking water from the Ohio River, with its towns for hundreds of miles above, than among those drinking well water.

The state courts of New York placed an injunction a few years since on the City of Buffalo restraining them from dumping garbage into the Niagara River, and Buffalo was compelled therefore to introduce a crematory to protect the city against disease. I am informed it has been working very creditably and satisfactorily the last few years.

A scientific and practical method of disposing of garbage has occupied the attention of scientists in Europe and America. Various methods have been adopted which have not been successful. It would be an act of charity if the Cleveland Medical Society could suggest the cheapest and best method of garbage disposal, and likewise educate the people to a proper condition of sanitation. It can hardly be expected that the Mayor and City Council can turn their attention on the subject. They have other duties that occupy their time and attention, and unless public opinion

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demand and ask them to take some course where money can be obtained to remove the waste from the city, I fear, Mr. President, you will never accomplish an object which you and your Society has so properly taken hold of. takes a long time for a few workers to bring about a result. Cleveland has for many years had a few active workers for public health. The local Board of Health of the city has certain laws to guide them in their work, but when money is to be expended, the City Council must approve all contracts. This should be to protect the interests of the people. As an illustration I can refer to sanitary work some years since. In May, 1886, the Board of Health in the city anticipated more or less sickness from the filth and garbage and waste that had accumulated in the city during the winter months. The city was divided into six districts; contracts were made to gather and dispose of the garbage, the Health Officer was instructed to present a request in the name of public health asking monies to carry out the plan of gathering the filth and waste around the city and disposing of it. In a few days the petition was returned, not

In June of the same year a resolution was approved by the full Board of Health asking for one thousand dollars to pay for a tank boat to remove the garbage six miles out into the lake and dump it. The citizens must procure a galvanized iron tank to hold swill and garbage, and men with close covered wagons would call once or twice a week, or oftener, for a sum of 25 cents. This petition was for a wonder approved by the City Council, and the sum of one thousand dollars was appropriated for the purpose. This system of removing swill and garbage is still in use with a slight addition as the garbage increased. We now pay the immense sum for removing the garbage, \$1,626.97. For a number of years petitions and resolutions sent to Council asking means to better sanitation came back with the

answer, "Not approved for lack of funds."

Garbage furnaces have been employed in Europe for a

number of years with success.

approved for lack of funds.

The cities of Mexico and Pueblo are located at an altitude of 6000 feet above the level of the sea. Their mortality is from 40 to 50 per cent. Mexico claims the same number of inhabitants that Cleveland claims. The death rate in Cleveland last year was 5,663, the death rate in Mexico was 17,844.

J. L. Hess, M. D. I certainly feel very much gratified at Dr. Beckwith's paper, as it was the one that has interested

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me most on account of touching on the garbage question. The water supply of our city has practically taken care of itself in reference to improvement at the present time. Our garbage question remains just about as it has been since the time that Gen. Cleaveland first landed on the site of this city. I have fallen in line with all my predecessors and have taken hold of the garbage question trying to dispose of it in some satisfactory manner; and with the assistance of the good ladies of the city, as well as the untiring efforts of the press, I have been able to accomplish some little. The City Council has at the present time decided to make some effort to secure for the City of Cleveland before our centennial season shall arrive a garbage plant which will take care of our garbage by some means. It is very largely the fault of the good people of this community that Cleveland is where she is to-day with reference to the garbage question. If public sentiment does not demand it, you can not expect your city officials to act. If certain of the good people of this city would go to their representatives in Council and tell them that they wanted them to do a certain thing, they would get it. As it is at present, very few people of the city know who their councilmanic representatives are. I had one of the most prominent business men of this city come into the Health Office last week one day and he was kicking very vigorously about some order that I had given him to clean up. He said he was willing to do anything at all, that he had a pile of garbage there, but he could not get rid of it. He wanted to know what he was going to do. That the city could not aid him and he could not get anybody to haul it away, and he did not know what to do. If he buried it, he stood some chance of being arrested, and he placed himself in a very delicate position all the way round. That is about the position I have been trying to place the city in since I assumed the duties of my office, by making it as disagreeable for the citizens as possible, to make them cry out for help.

The City Council at the present time has taken the matter of garbage disposal up and has appointed a committee which is now very energetically at work and have declared that they are going to have a garbage furnace before next season opens up. And I trust most sincerely

that the thing will go through.

We have the same condition to-day that we have had for 20 or 30 years, ever since the garbage question has been confronting Cleveland. There are no funds. There is only one thing for us to do, that is to go to the legislature and secure permission to issue bonds to erect a plant. The

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question of garbage disposal in this city is one that is going to cost the city about \$5,000. We have got to expect to pay for the cleanliness when we get it. However, the thing is in good shape at the present time for going through. And if the representative people of the city will interest themselves enough in city affairs and inquire from some of their neighbors who represents them in City Council and will go to them and demand of them such things as they want with reference to legislation, we will then get it, but you will have to expect to pay for it and you can not get

something for nothing.

With reference to the water supply of our city, I was very much interested in what my friend, Dr. Probst, had to say with reference to the water supply of the City of Cleveland. He looked very serious when he said that our city had a much higher death rate from typhoid fever than Cincinnati had. It was slightly amusing to hear the Doctor say that, because he gave me a little probe sometime ago with reference to the same matter. I had the pleasure of visiting Cincinnati some time ago. In Cincinnati they have some of the filthiest water the good Lord allows people to drink. But the people of Cincinnati have avoided the matter by leaving the water alone and drinking beer. In the City of Cleveland we drink just 40 gallons of beer apiece per year, while in the City of Cincinnati they drink about 82. So they are practically on the safe side.

Another thing is, that in the City of Cleveland the greatest number of cases of typhoid fever is confined to the districts in which they are using well water. When we get our water works tunnel extended and change the course of our sewage, we will have as pure and good water as any

city in the world.

There is one thing that is to be lamented of the medical profession in the City of Cleveland, and that is that they are not honest in their returns. And I do hope, gentlemen, that for the benefit of statistics alone, you will co-operate with the Health Department, and in that connection we hope soon to have such legislation as will compel that part of it.

W. A. KNOWLTON, M. D. The hour is getting somewhat late; we all want to attend the meeting to-night, and I will ask your attention for only a few minutes. Our audience is not large, but I am glad to see there are a few in Cleveland who are not more afraid of sanitarians than they are of bacteria. What little I say will be in the nature of inferences drawn from the addresses of President Staley and Secretary Probst, and discussion.



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I take it for granted that the people of Cleveland are fairly intelligent and sensible and that the majority of our people understand very well that pure air and water are conducive to good health, and that soap is a great civilizer. I presume they know well enough that if our system of sewage were the best that could be had, and if our air and water were purified as they are being done by our efficient Health Officer, that if our lands were well drained and our yards cleaned-I suppose our people know well enough that if these conditions prevailed, they would be healthier, stronger, better, happier. But the trouble is we do not act up to the lights we have, and perhaps we are not to be blamed so very much. Cleveland has grown; the burdens of taxation are great, and it is no wonder that we are a little negligent in sanitary matters, but this should be changed. The metropolis of Ohio should be at the front in sanitary matters as well as in many other things. Now I suppose we have really arrived at a feeling of unanimity on one point. We have reached the stage of evolution, if you please, where we recognize the fact that we can not keep out of disgrace unless we take care of our garbage, and we find the city authorities are moving in the matter, and the ladies are moving in the matter, and now we may hope there will be public sentiment so emphatically expressed that the city authorities will act with promptness and determination, and if we must go to the legislature, very well, let us go there. Let us have our representative properly instructed and instructed early. And we may hope that we will soon have a garbage plant. But there are grave questions surrounding the City of Cleveland in regard to sewage and water supply and they must necessarily be considered together. have an abundance of water and it ought to be good. can we hope to draw a pure water from the lake if we con tinue to discharge our sewage into the lake? Just think, if you please, of the future growth of population; of the cities up and down the lake, and of the millions that at no very distant day will dwell on its borders. All discharging their sewage and waste products into the lake and all drawing their water supply from her beautiful bosom. Now it seems to me we may not defy nature, we may not impose upon her. She is merciful, but if we presume too far, if we defy her, she will surely chastise us one of these days with a deadly hand.

Sewage poured into rapid streams is brought to the air and sunlight, and oxygenated. Sewage discharged into sluggish streams or lakes are not subject to conditions favorable to oxygenation or to destruction by organisms. It seems to me, that in view of what is known, and what is



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likely to come to the knowledge of the people before many years, at no very distant date legislation will be demanded, forbidding the pollution of the waters of the lake by the

sewage of the cities on its borders.

Now in regard to this water tunnel. Is not the extension of the water tunnel, after all, a mere makeshift, and a very expensive one? The purity of the water at any given point in Lake Erie, can not be determined by the examination of one or two, or three or a half dozen samples. It must be examined under all varying conditions, not simply in one; in storms and in floods, and when the lake is at rest. The lake sometimes has tides. Not long ago the water in the lake was reported to have fallen 30 inches. Let us understand that if our water mains become infected at such a time, we do not know how long they may remain infected.

Another thing aside from water pollution. Is this city to rest content with a cess pool for a harbor? Every day the city might properly cry: "Oh, my offence is rank; it smells to Hell!" And the offence grows and the smell waxes. It can be disposed of so as to create no offence and so as to avoid danger, and we have learned to-day how to do it. But it will cost money. A fairly intelligent people, what are we going to do? and on that point, I presume, there is a great diversity of opinion. Something must be done. After all, even if the cost be very great, are not the benefits worth the money? Even in dollars and cents. It may bear very heavily on a few; perhaps some few I am addressing here, but I am sure there are many will thrive under it. In the saving of labor and expense of caring for the sick, and in the burial of the dead, I believe, in a few years would return the original cost of the investment. We find that typhoid fever is not very prevalent in Cleveland. An English sanitarian said that for every case of typhoid fever somebody ought to be hung. Besides, I think our cases are not all reported, as the Health Officer states. And besides, our mortality is not as great as it used to be. We should consider not only the dollars and cents, but as well the lessening of suffering and the increased happiness of the people. Cleveland has just put about a million dollars into parks and boulevards. Million more will be required, and who shall say nay? Shall we not beautify our city until she is the very Queen of the Lakes? But are we not willing to put as much money into the purification of the city as we are to beautify her? And in the long run will it not pay well because Cleveland is to celebrate her centennial with a great exposition. What better advertisement, what more persuasive invitation to capital and labor, than the increase

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of the system of sanitary improvements, to make this the cleanest and healthiest city of the size in the world? Now if this is done, the cost will be great. The burdens of taxation will be somewhat increased, but this generation should not pay the principal, leave it to succeeding generations to pay it. If we bequeath to them the debt, it will be a good investment for them, as well as us. And if we bequeath it to them, we will also bequeath to them the fame and the glory of our city, and we will bequeath to them an example of courage to do a grand thing at the right time. I feel as if we ought to get stirred up in this matter, and have a little expression of public sentiment.

Evening Session.

DR. WIRT: The Secretary of the Society has the minutes, so we will have nothing in the way of business, except a communication which I will ask the acting Secretary to read.

(Dr. Foshay, acting Secretary, read the communication from the Centennial Commission, and on motion of Dr. Humiston, the Society voted to endorse the work of The Centennial Commission, and that a fund be started for this purpose.)

DR. WIRT further said: The meeting this evening is a continuation of the program, part of which we had this afternoon. This evening the first paper on the program is on General Sanitation by Col. Geo. E. Waring, of New York city, the highest sanitary expert in the United States.

Col. Jared A. Smith spoke on the Water Supply of Cleveland and Sources of Contamination. He said: After listening to so full and so instructive an address as we have just had, it seems as though the little that I might have to say is almost superfluous; but I shall join with you in being exceedingly glad that the task that has been assigned to me may be very briefly done. The most that I have to say is that which you already know. While I was at dinner this evening a friend remarked to me that he hoped that anything I had to say this evening could not be so forcible that it would drive our young men to drink. I don't know but it might even accomplish that result if I were to say all that might be said, but I do not intend to do that.

Let me repeat one other remark. One of the members of the Cleveland Medical Society, in inviting gentlemen at the rooms of the Chamber of Commerce to be present here this evening, remarked that we were going to hear some distasteful matters, and after that he was going to have one



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of Cleveland's sweetest orators to take the taste from their mouths. I was reminded of the custom among the ancient Egyptians who, believing in a future life, had the body embalmed and preserved. For that purpose, professional embalmers were employed who were under the necessity of mutilating the body somewhat in order to remove the brain and some of the viscera from the thorax and abdominal cavity. These were filled with antiseptic spices. Meanwhile the friends of the deceased would sit patiently about attending to their mourning, but when the embalming was completed, they jumped up and pursued them with cudgels and stones for having mutilated the body of their friend. But they are recalled to hear the silver-tongued orator who tells them of the personal beauty and mental qualities of him who has gone until at last their wrath is appeared. It seems to me that of the two tasks-that of the one who dissected a matter in order that we might live, or of the one who sang praises—that of the orator was more pleasant. So much by way of introduction.

It would be superfluous for me to tell any of you where Cleveland is situated; or where is the lake from which we obtain our water supply and into which we pour all our refuse. I had thought of making some comparisons between our own city and those of Chicago, of Detroit, of Toledo, and of Buffalo; but it is already growing in the evening and we want to hear some people who can speak much more to your interest, besides you know that comparisons are, like our own Cuyahoga, odorous, as Mrs. Malaprop would

say.

Those of you who have the blessing of good eye-sight may be able to see a map which shows a portion of our city front. It shows the outer harbor and the entrance at the mouth of the river to the inner harbor. This map shows the relative location of the crib and the tunnels from which our water supply is taken, and also shows where the greater amount of the sewage is discharged into the lake. One of the tunnels, seven feet in diameter, passes up to where the pumping works are, and the other one, five feet in diameter, comes down this way (indicating). Both of these are quite a distance below the ordinary surface of the lake. There is taken in the months of July and August (I take these because they are when the maximum amount of pumping from the lake occurs) from the lake an average of nearly forty-nine millions of gallons daily. And this amounts to 5630 gallons per second. That amount of itself is sufficient to cause a very slight current of the surrounding water toward the crib, so that whatever there is in its

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surroundings necessarily has a tendency to be centered there and to be brought into our water supply. I doubt if there are any persons here who have been long in Cleveland who have not occasionally tasted a trace of petroleum or some of its products in the city water. I myself have on numerous occasions. One of the methods employed by engineers to ascertain where water comes from or where it goes to is to tint or discolor it, and when we find that tint or discoloration elsewhere it is readily recognized. There are works for the purification of petroleum oil, we all know, on the river some distance from the mouth, and a very large proportion of the sewage of Cleveland is emptied into this river. But what most of you do not know is, that in addition to all that there are fourteen open sewers discharging directly into the lake upon our lake front. These occupy a space between Waverly Street on the west and East Madison Street on the east; and it is perhaps a little singular that our Lakeside Hospital should be located upon the shore between the mouths of two adjacent sewers. Can there be any question that, particularly in the summer time, when the temperature is at 70 degrees F., these waters that are thus discharged into the lake are laden with disease? That they are full of every kind of disease? I saw an account lately, or rather heard it mentioned, of some physician, perhaps of this Society, who had injected a drop of that water into a rat, and the rat died. I do not know what he died of, but my impression is that he must have died of almost everything. It seems to me not only the germs that ordinarily belong to the decomposition of organic matter, but those that are distinct components of disease must be among these. A few years ago a friend of mine, Dr. , told me they had an epidemic of typhoid fever in the city of Lewiston, which discharges into the Androscoggin River. And it was followed by an epidemic of typhoid fever in the town of Brunswick, and he said that beyond any question it had been spread in Brunswick, some 15 or 20 miles below, as I recall it, from the contamination of the water supply at the city above.

Do any of these things then that are discharged into the lake reach our water supply? I took the pains this afternoon to go into a little figuring to see how fast the current of the lake sweeps on. I asked a gentleman how fast it went and he said about four miles an hour; was not quite sure. The fact is that it is absolutely impossible to measure the general current of flow in the lake from the Detroit to the Niagara River, because there are so many other elements entering into the proposition that it cannot be solved.



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But we might get at what that would be were there no wind, no changes of barometric pressure; were there no other circumstances to interfere, we might find what that would be. We find the outflow of Niagara River to be at its maximum stage, found in observations taken during every month of two consecutive years, to be per second 239,677 cubic feet. I find that the area of the cross section of Lake Erie at this place, figuring it from the charts, is a little over eighteen millions of square feet. There we have the elements for determining the mean velocity. In the space of one second it flows so short a distance that I could not show it to you so distinctly that you could see it. In the course of about four days and a half to five days it would pass along the length of this breakwater, and in the course of about a month the ordinary current of the lake would take whatever was put into it past the whole city front. Here are the figures: In a second it moves 13-1000 of a foot, and in a day it would move 1100 feet, a day of 24 hours.

Two or three seasons ago I was in the habit of passing the summers in the country, and whenever I came in in the morning and the waters looked blue, I said we are going to have a comfortable day to-day. But when it looked dirty, I wanted to get out of my coat; to sit, in fact, as Sidney Smith said, "without any flesh so the wind could whistle around his bones." When the wind blows from the northward, the surface water is brought in to our shores, and is cleaner; it moves on the top, and the dirtier waters near the shore are pressed out underneath. If there are any people here who have been in swimming when the wind blows toward the shore, they know the water is warmer than when the wind blows away from the shore. When the wind blows off shore the dirty water is blown out over the top, and the water not only has a different coloring of itself, but of course it is differently affected by the wind that blows upon it.

I went to the office of the City Engineer to-day to get some current observations that I understood had been made. I would like to show you what they were. They were in every direction you can imagine that water has ever gone. When there is heavy wind from the north-east the water is piled up here, and there is quite a strong current along the shore. When it comes from the north-west there is a current along the shore in the other direction. When it comes directly toward the shore it blows the water in. Sometimes

it changes in a few minutes.

I think it might be well, not only to analyze these sam-



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ples chemically, but to take samples of the water and see whether any disease germs could be found by the process of cultivation, which you all know. There are diseases lurking in water that cannot be found by ordinary chemical

analysis.

There are, of course, many other ordinary forms of contamination for this water. I am going to mention only one; and that is the dumping of garbage into the lake. I believe it is understood that it is carried ten miles out into the lake, but if that towing is done in the ordinary way, it don't get out there; but suppose it is, these winds will drive it along on the water, and I think unless that is stopped, and unless all this throwing of our impure matters into the lake is stopped, there will be a time when we shall find a new rendering of that old teaching that if we cast our bread upon the waters it will return to us in many days.

MAYOR McKisson spoke on "The Financial Side of the Question" as follows: Mr. President, Ladies and Gentlemen: After listening to the elegant remarks I have heard to-night, as well as instructive remarks, I wonder that the people of Cleveland are as well as they are to-day. Before I get through with what I have to say, I want to touch briefly on one or two suggestions which they have thrown out to us. But in the first place I want to say that I am glad that the medical men of Cleveland are interested in the discussion this evening. It is gratifying to know that they are interested in this matter and are willing to afford us their support. The cause of health or the care of health, I believe, is the first duty of government at whatever cost or expense. We should not handicap those, or which ought to be cared for by us by trying to reduce the expense of those things which will produce health in the community in which we live.

It will not take me long to tell you all about the financial question, so far as the city finances are concerned, because there is not much to it, and in the second place because I know little about it. But I want to say this: that the finances of the City of Cleveland are probably fairly well known to everyone in this audience; and according to the financial report handed me by the Director of Accounts on the first of September, the City of Cleveland was within the debt limit, \$487,643.90. This debt limit has been established in Cleveland by custom and in large part by law. It is the law to-day, and it has come to us through our dealings in the sale of bonds to Massachusetts bankers that we will only increase the indebtedness of the City of Cleveland according



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to a certain per cent. of our wealth. Now if we follow this law and do not increase the debts of Cleveland, we have got to take one proposition or face the other. In order to make these public improvements, we must either go aside and let them pass for the time being, or else we must simply say that we will set aside the old Massachusetts law, and that we will place our bonds in the market and take what they will bring, and not follow the old debt limit that has come down to us from the time when our town was first laid out.

Now as to the water works indebtedness: it is a different proposition, because the indebtedness that may occur in the extending of the water tunnel for the purpose of giving us pure water, does not come within that scope. We can issue five hundred thousand or a million dollars worth of bonds and extend our present tunnel, and yet it does not affect our debt limit. And while talking on that point, I want to say that the sanitary experts, which was established by this administration, to look into the sanitary condition of Cleveland, and report upon the three topics under discussion tonight, have not made a final report as has been stated by a great many individuals in this city and by some of the papers, but they have made simply a preliminary report touching one or two propositions; and the first proposition they recommend is, that the present tunnel may be extended two miles further out into the lake. I want to say that in compliance with their report, we have already advertised and bids will be opened on the 9th of October for the building of a crib for the extending of the present tunnel two miles into Lake Erie. This will give us purer water and it does not affect our debt limit.

I want to say that so far as the city administration at the present time is concerned, we believe, and are ready to repeat, that if these improvements are to be made, we must, as citizens, first provide money to make them, and in order to make these improvements, of the sewerage question, harbor improvements and river purification, it will be necessary to issue bonds for several hundred thousand dollars. I want to say, too, at this time, that I believe the city of Cleveland has arrived at that point where we should take active steps to provide improvements of this character for our city. We have been waiting for these to be provided in various ways, but there is no relief because all of the taxation of the city of Cleveland comes by direct taxation upon the realty or upon personal property. If we were so situated as a great many other cities, like Cincinnati, like Chicago, Baltimore and others that we can name, where they get three to five hundred thousand dollars a year from



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licenses and franchises, we would be in a position to have these improvements without going to the Legislature to get them by bonds. But as we have neglected these and have let them slip through our hands, and as the State Legislature has never given us authority to make licenses except in a special way, we are now handicapped. The only way that we can extricate ourselves is by State legislation, by giving us permission for the sale of those bonds to make the improvements, and some other things that ought to come to us, or else we must simply put our hands behind our back and wait until that day comes when we will consider what we ought to have considered at the present day.

Another question comes up, and that is the garbage question. In order to keep within the debt limit of the city of Cleveland when the tax levy ordinance of 1896 was made up, it was by the hardest work that we found sufficient money to run the regular established expenses of the city, and in many instances they were cut down more than they have ever been; so that there was not a dollar left to place over into the garbage fund. It has been the custom of Cleveland, and I suppose I ought to be ashamed to state it on account of the fact that we have visitors here, that the enormous sum of about \$1,600 has been set aside year after year to take care of the garbage of the city of Cleveland.

I want to say also on the same proposition that the city of Cleveland, which has a population one-fifth as large as New York City, instead of getting a pro rata amount for the purpose of cleaning and sweeping our streets to correspond with New York City, where they get three million dollars—that the city of Cleveland gets for that same pur-

pose thirty thousand dollars.

The other day I was sitting in my office when a gentleman came in. He wanted to know what was the matter with the man who has charge of the streets. "Why," he says, "within the last month he has cleaned it four times. I I have lived on that street for twenty years and I never saw it cleaned but once before."

Now these conditions confront us, and it is only an illustration of the financial needs of the City of Cleveland as compared with the relation she bears to her sister cities.

In regard to providing funds for a garbage plant, whatever we may adopt, (and so far as I am concerned, I would be glad to profit by the experience of New York and wait a short time, if she is going to state what kind of a plant she will take in preference to others, and accept a similar or a better one,) but in order to provide funds for this question only two ways confront us. We must either provide bonds

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through the Ohio Legislature, or else we must go to the people direct and collect from them a regular fee for the handling of the garbage. We must meet it upon one of these two bases; and unless we do that we will have no principle or condition to place before you next year to take away from your houses the garbage that accumulates there.

I want to say in conclusion that in order to provide for river purification, harbor improvement, sewage disposal and garbage consumption so that the City of Cleveland may keep pace with her sister cities, she must wake up to the condition, and to keep the place she now occupies as the ninth city in this great Union, she must go to the Legislature and provide herself with the necessary funds to make the

needed improvements.

We must wait until this is done, or some source is contrived or devised which is unknown to the great mass of the people of Cleveland to-day. I am not in favor of doing these things except in extreme cases and at times when it is required. I believe in the considerate and wise use of money, but I believe it is not right to hold off longer, but to wake up to the condition that surrounds us and say that we will have the privileges and advantages which this city is justly entitled to without waiting longer for the action o anybody. I thank you for your attention.

DISCUSSION.

G. C. Ashmun, M. D.: I feel that the lateness of the hour is such that the audience will be satisfied by omitting my remarks. They would be only a repetition of what you have already heard.

HON. L. E. HOLDEN: I need not say to you how deeply I have been interested in the discussion of these questions to-night; in the able manner in which they have been presented; and I do not intend to weary you, if I were able, in repeating the arguments that have been given. a citizen I am greatly interested in this subject. As a citizen I desire to see the wisest possible plan carried out for taking care of the sewage of the city and furnishing the water supply. The conditions that surround us we all too well know. Now, it seems to me there is one good, common sense plan that is adapted to the present condition of our city, that will take care of the sewage of the city and that will ultimately transform the Cuyahoga River into a clear and clean stream, as God made it; and that is to establish a series of intercepting sewers that will go along the lake front and take our refuse and filth that is now poured

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into the Cuyahoga River, and carry it far out, ten or twelve miles distant, towards Euclid. This sewerage should be utilized there. The first thing, it seems to me, is to stop the sewerage from running into the lake—keep it away from the water out of which we must drink. There is nothing left for us to do but to do that.

I am decidedly opposed to the plan of my friend, the Mayor, of extending the water-pipe two miles out into the lake. I do not believe it is practicable. It believe it is a wrong and unwise expenditure of money, and I am opposed to the expenditure of money except in the purchase of its worth. You do not enlarge a man's capacity to breathe by stretching his neck twice its length. You do not add one drop of pure water to our water supply by simply extending that tunnel two miles in length. You do burden the taxpayers of the city of Cleveland unjustly and unwisely.

If this proposition is true, if this is simply the common sense view of the matter, to take up the sewage that is running now naturally into the lake and into the river, defiling it and rendering the very water that we drink impure, why not take up this plan? We have considered it carefully here. Committee after committee before the present board have thought this thing out. It is no new plan, but it is a plan grounded in good engineering; grounded in wise hygienic laws; grounded in good common sense.

There is a natural drift, a natural flow towards the lake. We have adapted our sewerage system to that. There is a gentle declivity down the lake that way. There are no engineering difficulties in taking care of sewage; and it will not cost as much to build this sewerage system, this intercepting sewer ten miles down the lake, as it will to build the crib and this water canal away out into the lake two miles.

I am not going to make a speech, but simply to express the opinions that come honestly to me. I believe what I am stating to you. I believe the people of this city are ready when a plan that is wise is presented to furnish the means with which to build the sewers and to build any water supply that you need. First build the sewerage system. You are not going to give pure water to the city by extending this out two miles. The same conditions will continue. The winds will carry the filth out on the surface of the water to come back into your house and mine for us to drink. So believing, so I speak.

I do not need to continue this discussion. I believe the people of this city understand it. I feel we are greatly indebted to this Medical Society for what they have done in bringing forward this discussion, in bringing it before the



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people, and bringing these able men here to give us of their information. We certainly owe to them a vote of thanks as citizens, for I see many of our intelligent and respectable citizens in this audience. We owe to this Medical Society a vote of thanks for what they have done and for what they are doing, and for what they propose to do on the lines for the preservation of the health of the people of this city. I move a vote of thanks to the Cleveland Medical Society. [Motion seconded by Mr. Day, with appropriate remarks; also, amended that the speakers be thanked. The amendment and motion carried.]

MAYOR McKisson: I would like to make a statement. I do not believe Mr. Holden understood what I said. The present administration has three men of national reputation: and they have looked over the City of Cleveland very carefully; and they have made a preliminary (not a final, but a preliminary report) and it is to extend the present tunnel to pure water; and they will also follow that by another large tunnel in the same location, and possibly another, in order to give the city of Cleveland the necessary amount of water which she uses, which is 69,000,000 gallons, the maximum this summer.

As to the sewerage matter; I do not want to say tonight that they have decided that, but they have said to the citizens of Cleveland that possibly (and this is probably the facts) they will recommend an intercepting sewer almost where Mr. Holden has talked, but in order to dispatch work they have given us a point to start, and we are following

the advices of eminent gentlemen.

MR. HOLDEN: I did understand all except the last part. I want to say I am exceedingly thankful that there is a probability they will adopt a system of intercepting sewers, and if they do that it is entirely unwise to expend the money to go away off into the lake.

A telegram from Mr. Hoyt, in Chicago, was read, to the effect that a business engagement prevented his attend-

ing the meeting.



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THE PUBLISHER'S SALUTATORY.

The current issue of the CLEVELAND MEDICAL GAZETTE commences a New Year and the ELEVENTH Volume of the journal. The Publisher and Editors send greetings and best wishes to all our readers and contemporaries. It seems also, as if this was the proper place for the publisher to make his bow and come forward with his little speech. While the present business management has been in force some months, it has seemed wisest to quietly take a "lay of the land." This having been done, it seems proper to present to our subscribers, and especially to the profession in the city and county, some business plans and requests, which, if received in the proper spirit—the spirit,

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it is hoped, in which they are offered, will enable us, by the end of another ten years, to take rank with the highest type of medical journalism, and become one of the leading medical journals of the West.

That such a fact is possible, any unbiased man will admit, and he will proceed to outline the proper course to follow to win this success. All of the opinions we seek to secure and do our best to please the largest possible number. Most of the medical men of this city and county have more or less of the true professional spirit, but it is so difficult to surrender personal feelings for the good of professional duty, that progress is hindered by many personal difficulties. The GAZETTE has innocently made some enemies among the profession in other cities of the state, and the charge that is made is, that Cleveland men use the Cleveland institutions and Cleveland journals for their own personal promotion and advertisement. So it can be seen at once that the difficulties that a publisher meets in seeking to "pour oil on the troubled waters," are many, and as a voucher of good faith this announcement solicits your co-operation not as men, but professional men.

If the matter can be stated briefly at all, it may be that a few requests will cover the ground:

Let petty differences, even though they seem of great moment to the persons interested, sink out of sight. What personal matters can compare with the importance of scientific advancement?

Let the business department of the GAZETTE be conducted in a business-like manner, and this will only be possible when subscribers pay their subscription promptly and in advance as requested.

If you feel that you are a shade higher in the ranks than the average fellow, do not make this an excuse for wanting your journal free of charge.

If you have some personal enmity against any editor or contributor, do not allow this to rob you of good service that the GAZETTE might give you.

If the subscription price of the paper seems more than it should be, when compared with some older and more widely circulated journals, you will remember that each

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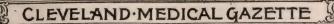
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good word, each new subscriber, and each additional page of advertising that we can secure means a possibility of supplying the journal at a cheaper rate, or of giving more for the money than promised. When we can secure 50 pages of advertising, we will be able to present a 150 page journal more easily than 100 pages now, as we have in this current number.

The change in the appearance of the GAZETTE we trust will please our readers. The volumes will be uniform in size and quality of paper, and by taking advantage of the Binder offer, in another place to be found, any subscriber can preserve the numbers as they appear, and when a volume is complete, the binder serves as a permanent binding. In addition to this promise on part of the publisher to present each issue a handsome and as extensive a number as possible, a compliance with the before written requests will enable him to promise that no other aim, but that of serving the medical profession to full satisfaction will be a motive in the work, and that service will be sufficiently paid to satisfy. A covenant is already in force between the editors and publisher that covers the question of advertising. While it is necessary, under the present social arrangement to secure an income, it will never be the aim of the GAZETTE to make money only. The character of the advertising will be carefully watched, and as our readers grow in number we will be able to discard more and more of advertising that might be questionable, and carry the GAZETTE to the highest grade of medical journalism.

If you know that you have been receiving the journal for a number of years and have not paid for it during that time, will you not kindly settle up the old subscription now and begin upon a new and business-like basis? Any subscriber promising continued support and making a reasonable proposition regarding the past subscription, will find it accepted. The GAZETTE has the confidence of the advertisers. That the confidence with which the second ten years is entered, is well founded, we hope your future support and unselfish co-operation will verify as subscribers.

This is the bow and the speech. Please read the business notices to be found on another page.





EASTERN OHIO MEDICAL ASSOCIATION.

This active organization held one of its regular meetings on October 1st, at the Mosgrove Hotel in Steubenville. "Pulmonary Phthisis" occupied the entire program, and received a pretty thorough overhauling. The subject was divided as follows: Symptoms-Subjective, Dr. A. B. Holland; discussion opened by Dr. E. Pierce. Symptoms-Objective, Dr. A. H. Korner; discussed by Dr. Geo. R. Wycoff. Etiology by Dr. L. A. Lemmon; Dr. S. McConnell beginning the discussion of the paper. In like manner the Pathology was handled by Drs. J. F. Purviance and J. A. Lindsay; and Differential Diagnosis by Drs. H. W. Nelson and A. A. Elliott. Complications received the attentions of Drs. S. B. McGavran and G. A. Colville; and Prognosis those of Drs. W. N. Bailey and W. R. Clark. The topic "Treatment" was still further sub-divided and apportioned as follows: Prophylactic-Dr. J. O. Howells and Dr. J. A. McCullough. Hygienic-Drs. J. S. McClelland and D. W. Long. Dietetic-Drs. J. P. West and B. R. Medicinal-Drs. W. H. Wood and W. H. Stokes. Climate-Drs. J. W. Cooper and L. O. Williams. One might suppose that this would have exhausted the list of members, as well as their time and patience, and cut off discussion, but such was not the case. In this society the papers are limited in length to twelve minutes by the watch, and discussion confined to the subject named. After the papers and a dinner had been well discussed, an excellent clinic was held. Interesting cases were presented by Drs. Elliott and Blackburn of Steubenville, and Bogeman of New Alexandria. The next meeting is to be held on Jan. 14, 1896, at which time the annual election of officers will take place. At present Dr. B. O. Williams is President, and Dr. J. C. M. Floyd, Secretary and Treasurer. S. W. K.

SHORTNESS OF THE FRÆNUM GLANDIS AS A CAUSE OF GENITAL HYPERÆSTHESIA.

Fere states (Revue de Chirurgie No. 4, 1895, Therap. Gaz.) that an unduly short frænum glandis not only interferes with coitus, and causes so much deviation of the



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meatus that fecundation may be impossible, but that it also induces genital hyperæsthesia and premature ejaculation. The condition may also give rise to sexual perversion. He reports a case in support of the views which he expressed. A very simple operative procedure suffices to remove the abnormality with its accompanying results.

On reading the above, we are reminded of the case of a young married man who gave a history of insatiable desire and unconquerable erections. There seemed to be no interference with fecundation, for seven years of married life had brought him five children to support and the prospects were good for as many more; still he had no peace day or night. He had a frenum glandis attached too far forward and forever on the stretch; but this "bridle" as he called it, was anything but a bridle to passion; it was more like a spur. The patient himself conceived the idea that the frenum was the cause of his constant aggravation and at ast became so exasperated that he took a razor and made the little operation for himself. After this, as he declared, he experienced the first relief he had known for years from the propensity supposed to completely dominate no one but a satyr.

S. W. K.

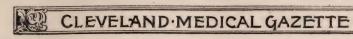
SANITARY CONFERENCE OF THE CLEVELAND MEDICAL SOCIETY.

It is with some misgivings that the editors have been obliged to omit much valuable matter in all departments, to make room for the transactions of the quarterly meeting of the Cleveland Medical Society, devoted to the subject of Sanitary Science. But the general interest in and the value of the subjects discussed seems to justify so doing. It is not unsafe to say that the papers and discussions will be of more than local interest, and we trust the report will meet with the hearty approval of our many readers throughout Ohio and other states.

A PATHOLOGICAL JOURNAL CLUB.

The students in the Junior Class of the Medical Department, University of Wooster, have organized what they have named a "Pathological Journal Club." Almost all of the

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students in this class have completed a full course of instruction in bacteriology, and are just entering upon the study of pathology. This organization is the outgrowth of a general desire among the students for further familiarity with these subjects; and it is believed that the outcome of it will be to stimulate a knowledge of the methods of scientific literary research by bringing the students into contact with current progress in these fields. That the study of medical literature should form an integral part of the medical curriculum is an idea not without support by able educators. The subject has been especially emphasized by Dr. Bayard Holmes of Chicago, and Dr. Holmes has attempted to introduce this kind of work in connection with his instruction in surgery; but while his plans are excellent, the details are quite impossible of execution in a city like Cleveland, in which a good medical library is not available.

Journal clubs are by no means unique in the advanced literary and scientific schools of the United States, though they are almost unknown in medicine, save one or two organizations in eastern schools which are composed of hospital internes and investigators. A journal club composed of undergraduate medical students is, however, so

far as we know, a new venture in a medical school.

The plans of this club are to have the members make translations and abstracts of important articles from the several special German and French periodicals dealing with pathology and bacteriology which have been placed at their disposal; to make abstracts of contributions from American and English journals which have a direct bearing on pathology; to read these translations and abstracts before the club; to encourage liberal discussion of contributions, and finally to provide a medium through which the students may present any interesting or original work in which they

are engaged.

The first meeting of the club was held Thursday evening, Oct. 3, at the college building, and contributions were made by Messrs. Schott, Schnee and Fleming, which are printed elsewhere in this number of the Gazette. A very earnest and intelligent discussion, which followed the reading of these communications, showed the interest of the students in the subjects and a more than ordinary familiarity with the details of the papers. At the conclusion of the discussion, a freshly-obtained specimen of portal thrombo-phlebitis of the liver, consequent to an old appendicitis, was demonstrated. The club then elected Dr. Ohlmacher president and Mr. A. L. Smith secretary, and voted to hold its meetings bi-weekly. The proceedings of the future meetings will be published in the Gazette.



ON BACILLI COLI COMMUNIS AND RELATED FORMS.*

In this article, (American Journal of the Medical Sciences, Sept., 1895, pp. 283–302,) by Theobald Smith, a number of varieties of Bacillus coli communis, and other forms of bacteria resembling it in general character, are described. Most of the tests in this work have been made with the fermentation-tube, first recommended by Smith, a much more certain and easy method of differentiation than the ordinary one of potato culture, the milk test, or the indol-reaction, and one which shows a very sharp distinction between the B. coli and allied forms.

B. coli is first considered. It has been claimed to be the cause of typhoid fever, diarrhœal diseases of infants and adults, peritonitis, and numerous other diseases. Likewise, it holds the same position as the cause of disease in the lower animal kingdom; and it is found in drinking water.

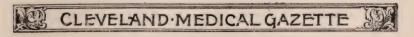
Many writers have given its distinguishing characters in various ways, all of which have proven more or less valueless from the diagnostic standpoint. The author suggests that those forms be regarded as belonging to this species, which grow on gelatine as a bluish-white expansion with irregular margins, are actively motile, coagulate milk in a few days; and, in the fermentation-tubes, with dextrose-bouillon, produce gas rapidly, and give a strongly acid reaction; with lactose-bouillon the same, with perhaps a slight variation; and with saccharose-bouillon, gas production is slower than the preceding, and a slightly acid or alkaline reaction.

Among the many forms resembling *B. coli* is one taken from a sample of well water. Bacillus in form, size and motility *B. coli*: coagulates milk in four to five days. The difference is seen in the fermentation reaction.

Dextrose-bouillon, no evolution of gas, acid reaction. Saccharose-bouillon, no evolution of gas, reaction unchanged. Lactose-bouillon about the same as the *coli communis*.

Pseudo-typhoid-bacillus is another species resembling B. coli in the form, size and motility of the bacilli. It does not coagulate milk, and the reaction in dextrose-bouillon is pronouncedly acid; Lactose-bouillon, feebly so, and Saccharose-bouillon, alkaline.

^{*}Abstracted and read before the Pathological Journal Club of the Medical Department, University of Wooster, Oct. 3, 1895, by Mr. J. J. Fleming.



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Another form frequently mistaken for $B.\ coli$ is the $B.\ lactis\ arogenes$, caused probably by the failure of many observers to note the motility of $B.\ coli$. These are non-motile, Bacilli plumper and a trifle shorter than $B.\ coli$. The colony is not cohesive and is easily broken up with the platinum needle. Their action in dextrose and lactose-bouillon is precisely like $B.\ coli$; but neither gas nor acids are found in saccharose-bouillon.

Thus it is seen that by the use of the three kinds of sugar-bouillon, the *B. coli* obtains much distinctiveness from the other species, and that the gas and acid productions are

very fundamental diagnostic features.

In regard to the isolation of the group of colon bacilli from water, Smith remarks that it has been the not unreasonable hope of bacteriology to find processes capable of revealing specific disease germs in water, especially in the case of typhoid bacilli. This for some years past has been a subject of much labor, attended with many difficulties, on account of the presence of the colon-group in polluted water, and to this group the author finally turned his atten-

tion as an indicator of pollution.

Ordinary gelatine plates made from a small quantity of water are not possible, as usually there are bacteria present which grow more rapidly than B. coli and liquify the gelatine before any growth appears. Therefore other devices must be brought into play. Among some of these, Wurtz recommends agar, to which lactose has been added and which has been tinged with a little litmus. The colonies divide into groups. Those which act upon lactose produce acids and change the color to red, and those which do not, leave the color unchanged. The colon-bacilli are among the former, the typhoid among the latter.

Another method devised by Rodet and C. Roux, is as follows: To a flask containing 100 c.c. m. of bouillon, 50 c.c. m. of water is added, quickly warmed and placed at a temperature of 37° C. On making gelatine plates, but one

species of B. coli was found.

Smith's method of testing water for colon bacteria consists in adding water to a series of fermentation tubes containing glucose bouillon and placing in the thermostat. In two or three days a quantity of gas is formed and on plate cultues usually but one specie appeared, occasionally two. It may be argued that two gas producing species in the same tube may hide the indications of the test, but from a series of experiments the author has been convinced that *B. coli* will always hold its own type. In his bacteriological examination of water he has used the fermentation tubes



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almost exclusively, and in his researches has as yet found no species which did not conform to one of the following: B coli, B lactis œrogenes, B enteriditis, and B typhi murium.

The claims made for this are its simplicity and accuracy. By the use of the fermentation tube, only small quantities of water are employed, and by it, fecal contamination of a water supply can be readily detected, while the difficult and uncertain hunt for the typhoid bacillus is escaped.

ON SOME CONDITIONS AFFECTING THE BEHAVIOR OF THE TYPHOID BACILLUS IN WATER.*

By Edwin O. Jordan, Assistant Professor in the University of Chicago.

Under this title, Jordan (Medical News, Sept. 28, 1895, pp. 337–343) records an interesting series of experiments by means of which he has endeavored to answer the questions relating to the longevity and fate of the typhoid bacillus and the colon bacillus, when artificially introduced into water. His conclusions are drawn both from recent experiments along this line made by himself, and from those of other noted investigators.

It is generally admitted that drinking water is sometimes, perhaps usually the vehicle of infection in typhoid fever. The exact conditions that befriend or antagonize this germ in water are therefore a matter of great im-

portance.

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In the case of the artificially introduced organism we must know its specific characters before it is used experimentally; that is, the source, age, and character of the culture must be known. The culture made use of by the author was obtained on November 26th, 1893, from the fresh spleen of an individual who had died of a typical attack of typhoid fever. It was obtained in pure culture and parallel studies of this and *B. coli* gave assurance that the typhoid organism had been isolated. Especial emphasis is laid on the fact that no gas was produced in glucose-agar or glucose-peptone bouillon by this organism.

Jordan ascribes the variance in results obtained by other investigators, among them Meade Bolton, De Giaxa, Heraeus, Straus and Dubarry, Wolffhugel and Riedel, to

neglect of proper methods.

The author's method of inoculation has been as follows: A 24 to 48 hours old agar tube culture, grown at 37.5 deg.

*Abstracted and read before the Pathological Journal Club of the Medical Department, University of Wooster, Oct. 3rd, 1895, by R. G. Schnee.

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was always used. Two or three loopfuls were taken from the surface of the culture, removing as little nutrient media as possible. These loopfuls were transferred into 50 c.c. of sterile distilled water in a small Erlenmeyer flask, and the flask shaken thoroughly to bring about a separation of the individual germs. The number of bacteria in 1 c.c. of this inoculation water was then estimated and 1 c.c. of it added to a litre flask containing the sterilized water in which it was desired to test the vitality. By experiment it was ascertained that the amount of food material introduced from the culture by this method was not large enough to affect to any extent the longevity of the bacilli, also that within certain limits the numbers introduced play no great part. After then, adding a known number of the bacteria to a litre flask full of the water to be tested, the whole was set aside at the room temperature, and from time to time the number of bacteria in the flask was ascertained. In these tests, steam-sterilized lake water (obtained from the laboratory tap in the Chicago University), steam-sterilized distilled water, and redistilled water to which certain quantities of nutrient matter (peptone) had been added, were employed.

To account for an apparent connection between numbers and longevity said to exist by some experimenters, Jordan makes the important observation that the number of living bacilli taken up by the loop from a 48-hour culture, freshly isolated, is greater than the number taken from a 48-hour culture that has been under artificial cultivation for some time; also that bacilli from freshly isolated cultures have much greater vitality than those subjected to artificial cultivation. It was found that the typhoid organism described above maintained its vitality for 93 days in sterilized

tap-water; then a steady decline went on.

By another series of experiments it was noted that B. coli was more sensitive to slight increments of nutriment than B. typhi, and that it showed a more tenacious vitality. The longevity of the typhoid bacillus was tested in distilled water, to which a standard solution of peptone had been added, which made it plain that the presence of nitrogenous matter in a given water plays an important role in lengthening the life of the typhoid bacillus.

The following are the conclusions arrived at by the

author:

1. That the age of the stock solution influences greatly

the life of the typhoid organism.

2. That the typhoid bacillus introduced into sterilized Lake Michigan water does not multiply, but may, under proper conditions, live for upwards of 93 days.



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3. That the colon bacillus under similar conditions multiplies rapidly and may live for upwards of 262 days.

4. In redistilled water the typhoid bacillus perishes

much more speedily than in water of the lake.

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5. The quantity of organic matter in redistilled water influences fundamentally the life of the typhoid bacillus.

6. In sterilized lake water the addition of a much smaller quantity of organic nitrogen affects the longevity of the bacillus typhi.



BY L. B. TUCKERMAN, M. D.

With the further use of the anti-toxin treatment of diphtheria the profession is coming to a fuller knowledge of its advantages and limitations. Dr. Welch' of Baltimore, has recently collated the cases reported up to date, and the conclusions at which he arrives should be borne in mind by every practitioner who has a case of suspected diphtheria to treat. The results of the treatment in over 7,000 cases demonstrate beyond a reasonable doubt that the serum is a specific curative agent for diphtheria, and surpasses in efficacy any treatment hitherto known. But too much must not be expected of it. It will not raise the dead or moribund. A most significant fact is that in 814 cases in which treatment was begun before the third day of the disease, the mortality was only 5.5 per cent., while in cases where the treatment was deferred till the third or fourth day, the mortality was three times greater. But even including the cases in which the serum was administered late, the total mortality among 7,166 patients treated with anti-toxin was 1,239, or 17.3 per cent., while the previous and simultaneous mortality of similar cases treated without anti-toxin was 42.1 per cent., showing an apparent reduction of case mortality by the use of anti-toxin of 55.8 per cent. It should be borne in mind, moreover, that 7,000 cases is no small number—it is so large, in fact as to nearly eliminate the "co-efficient of error" which so invalidates the conclusions from smaller series of cases. But the microscopic test has shown that in most fatal cases we have a mixed infection, streptococcus and staphylococcus sepsis complicating and intensifying the effect of the toxic product of the Klebs-Læffler bacillus. How serious an affair a coccus throat

^{1.} Bull. Johns Hopkins Hosp .- July-Aug., 1895.





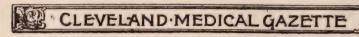
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may become in a patient exhausted by disease we all know from the so-called diphtheria of scarlatina and measles which is most often a growth of cocci and is only rarely due to the Klebs-Læffler bacillus. Diphtheria anti-toxin is powerless to check the growth of cocci. Neither has anti-toxin the power to repair those degenerative changes in the nervous system which occur so often early in the disease. Furthermore it exerts no bactericidal effect whatever on the bacillus itself, and virulent bacilli may persist for days and even weeks in the throat after recovery by the use of the serum. The experiments of Dr. William Vissman of New York,2 as to the effect of anti-toxin serum on rabbits indicate, moreover, that the serum in immunizing doses affects the kidneys directly, and gives rise to lesions characteristic of acute nephritis, the intensity of the lesion increasing with the size of the dose. "The kidneys of the animals killed twentyfour hours after the injections were very firm, and of a dark red color. On the cut surface the cortical substance was very much injected, slightly opaque, and a little more prominent than the medullary substance, which was pale in color. On microscopic examination of fresh sections in 0.6 per cent, salt solution, the Malpighian bodies and capillaries of the cortex were found to be distended with blood. The epithelial cells of the tubules were filled with refractive granules obscuring the nuclei, which were only brought to view by the addition of dilute acetic acid. There were no casts found in the tubules."

The longer the interval between the injection of the serum and the killing of the animal, the less marked was the injection of the blood-vessels and the more prominent became the cloudy swelling. Liver and spleen were also slightly swollen and redder than normal. From the facts now at hand the physician is warranted in concluding that the anti-toxin treatment is THE treatment for diphtheria whenever a reliable article of non-septic anti-toxin is to be obtained; that the treatment should be applied at the earliest possible moment at which a diagnosis can be made, and by the rapid culture method devised by Dr. A. P. OHL-MACHER, of this city3, a diagnosis can be made in four hours; that in view of the fact that anti-toxin does not inhibit the growth of septic cocci, mild antiseptic gargles are still indicated. And, by the way, in confirmation of DR. VISSMAN'S conclusions, Dr. OHLMACHER tells me that in the cases he has observed, wherever albuminuria existed previous to the use of the serum, it was greater after the serum was used-another weighty reason for using the

Med. Rec., Sept. 4, '95.
 Med. News, May 4, '95.



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anti-toxin early and before the diphtheria toxin has had time to produce lesions of the kidneys and nervous system. As Dr. Welch has shown4, the essential harmlessness of the serum has been demonstrated by over a hundred thousand injections, and occasional ill results ought, in view of the general good accomplished by its use, to be classed with those occasional accidents resulting from the use of anesthetics. Nevertheless, if we wait for a diphtheritic nephritis to develop before using the anti-toxin, the effect must be to intensify the nephritis. It follows as a matter of course that every city should pattern after the city of New York in dealing with this and kindred zymotic diseases, viz: Have a well-equipped bacteriological laboratory where a diagnosis can be promptly made, and have the serum made under the supervision of the health department, so that no mercenary consideration shall raise a doubt as

to the genuineness and purity of the remedy.

The old drugs are one by one coming to the fore again and bearing witness to the clinical acumen of our forebears in the ars medicandi. With regard to the use of tartar emetic in tedious labor, Dr. John T. DeMund writes: "In a pretty large obstetrical practice of over thirty years, alone and in counsel, I have found that the majority of confinement cases the rigid os and equally rigid perineum yield readily under the proper administration of tartar emetic, without unpleasant effect upon the child in utero and none to the mother. Tartar emetic is positively oxytocic, a something long looked for. It almost usurps the place of forceps-is a great aid to them when necessary; it casts into oblivion dilators-instruments of torture; and the inhalation of chloroform or ether may also be numbered with things of the past. The emptied bladder, the washed-out rectum, are two cardinal points in delivery; and third, the emptied stomach enables a certain stage of labor to progress rapidly, as well as favorably." His plan is, to dissolve ten grains of tartar emetic in half a glass of water and to give two teaspoonfuls every ten or fifteen minutes till free emesis ensues. He says: "It seems passing strange to the writer that so simple a remedy should have lain dormant till the present." Though he evidently was not aware of it, tartar emetic has been so used in Northeastern Ohio as far back as we have any knowledge. We can bear personal witness to its efficacy in relaxing a rigid os or perineum, for, following the teaching of our preceptors we have used it almost as a matter of routine. But the Dr. is, we think, a little enthusiastic in expecting to wholly supercede anesthetics and the forceps with tartar emetic, for we have seen cases where all three were called for.

^{4.} Loc. Cit. 5. Med. Rec., Oct. 5, 1895.



THE PATHOLOGY AND SURGICAL TREATMENT OF TUMORS. By N. Senn, M. D., Ph. D., LL. D., Professor of Practice of Surgery and Clinical Surgery, Rush Medical College; Professor of Surgery, Chicago Polyclinic; Attending Surgeon to Presbyterian Hospital; Surgeon-in-Chief, St. Joseph's Hospital, Chicago. Illustrated by 515 engravings, including full-page colored plates. Price, \$6.00 cloth, \$7.00 half morocco. Philadelphia: W. B. Saunders, 1895.

Comprised within the space of about seven hundred pages we have given undoubtedly the most lucid, and in all respects, satisfactory account of the pathology and surgical treatment of tumors that has appeared in the English language; the author's well-known reputation as a pathologist and surgeon is of itself a sufficient guarantee as to the great merit of the work.

The following quotations from the preface show the author's intention of making this treatise one of inestimable aid to all engaged in the healing art. "Every teacher of pathology and surgery knows how difficult it is to impart to the student a knowledge of the structure and clinical tendencies of the different kinds of tumors sufficiently accurate to enable him to make a reliable diagnosis at the bedside. The general practitioner often remains painfully conscious of this defect in his early training, and the surgeon is frequently in doubt when to apply his art or when to pursue a conservative or palliative course when applied to for treatment by patients suffering from obscure tumors presenting one or more of the numerous complications to which they are subject." "The author has spent many years in collecting the material for this work, and has taken great pains to present it in a manner that should prove useful as a text-book for the student, a work of reference for the busy practitioner, and a reliable, safe guide for the surgeon." The book is profusely and beautifully illustrated with engravings and full-page colored plates.

In words of reverence and affection the author has dedicated this work to his late lamented friend, Samuel David Gross, justly called "the Nestor of American Surgery," whose memory will for generations to come remain fresh in the mind of the profession wherever Hippocratic medicine is taught and practiced.



Dr. Hunter Robb has removed his office and residence to 1342 Euclid Ave.

Dr. Wm. Lincoln has moved his office to 333 Prospect Street.

Dr. and Mrs. Wm. Thos. Corlett held a reception at their home, 553 Euclid Ave., Friday evening, October 18.

Seventh annual banquet of the Mahoning County Medical Society was held at Youngstown, Wednesday evening, October 16th. In addition to the large membership of the Mahoning County Society there were present from Cleveland Drs. W. T. Corlett, Wm. E. Wirt, Howard H. Straight and Albert R. Baker, and also Dr. John Milton Duff of Pittsburg. When coffee had been served, Dr. J. J. Hawn introduced the toast-master, Dr. J. J. Thompson, who introduced Dr. John McCurdy, who responded to the toast, "The Twentieth Century Physician." The other toasts were: "Two Literary Physicians," Dr. Ida Clark; "The Real Aristocracy of the Profession," Dr. T. M. Sabin, of Warren; "The Ladies," Dr. C. C. Booth, and informal toasts by Drs. Wirt, Straight, Baker, Duff and others. These annual banquets are most enjoyable and should be a feature of every local medical society.

A Nail in the Skull for Thirty Years.—For thirty-two years Francis Mellon, who recently died in a Blackwell's Island hospital, managed to exist with a lath-nail driven through the crown of his head. He suffered no apparent inconvenience, and had it not been for the autopsy no one would have known of the presence of the nail. The skull, with the nail driven through the thick bone, is now among the hospital's collection of curiosities.—Medical Review.

Vaccination.—The opponents of this most beneficial measure have only to enter Italy and witness the frequent outbursts of smallpox, and its ravages amongst the rural population, to be taught a lesson of its value. Blindness from smallpox, almost totally stamped out in England, finds frequent victims still in Italy, where vaccination is only done sporadically amongst the country people.— Journal of Medicine and Science.

Black Witchcraft.—A fearful case is reported from Ireland, where a woman was boiled or roasted to death under the impression that she was "fly," or a witch of vicious predilections.—Indian Medical Record.





ALCOHOL AS A DEFENSE FOR CRIME.*

BY HON. MARTIN A. FORAN, CLEVELAND, O.

The writer believes that alcohol is a toxic poison, and that its use as a beverage is productive of psychological and physiological injury to the human race, and it is proposed here to deal with the legal phase of one of the many evils growing out of the use of this poison as a beverage; that is, to what extent should complete inebriation, habitual or otherwise, be an excuse or defense for crime.

It is not the purpose of the writer to enunciate the doctrine that complete intoxication should, in every instance, be a defense for crime. I plead rather for a more consistent, a more humane and a more reasonable rule than that now recognized by our courts. The rule as first promulgated by Sir Edward Coke in the latter part of the sixteenth century was, that "a drunkard who is voluntarius demo hath no privilege thereby: whatever ill or hurt he doth, his drunkenness doth aggravate it." That is, that a man who commits an act while drunk, which he would not commit if sober, is worse than the man who does the same act from cool, sober, deliberate purpose and intent. If this learned Jurist had confined this rule solely to the person who, having a wicked

*Read before the Medico-Legal section of the Cuyahoga County Medical Society.



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desire to injure his neighbor, purposely drinks intoxicating liquors, to nerve himself to the commission of the crime, our sense of reason and justice would not be shocked, but viewing it in the broad, sweeping sense the language imports, we cannot imagine how any man could soberly enunciate such a barbarous and inhuman doctrine. The absurdity of the rule became so manifest that lawyers and judges have ever since its promulgation, shown a disposition to ignore it in certain classes of cases, and have sought to distinguish between the guilt of a man who commits a crime unconsciously, even though it be in consequence of a voluntary vicious indulgence in intoxicants, and the man who is actuated in the commission of crime, by malice aforethought, who in sober moments coolly and deliberately plans and commits the offense.

That this should be so, seems to admit of no rational doubt, but the effort to effectuate a relaxation of the rule. and establish a milder and more humane one, has frequently led our jurists into glaring inconsistencies and illogical absurdities. For instance, in our own State, Judge Read in the Pigman case, 14 Ohio, solemnly asserts that on a charge of passing counterfeit money, "if the person was so drunk that he actually did not know that he had passed a bill that was counterfeit, he is not guilty." And yet, if the same man was being tried for stealing a loaf of bread, it would avail him nothing to show that he was so drunk that he did not know he took the bread, or even where he got it, or how it came into his possession. This learned Judge says that, "the crime of passing counterfeit money consists in knowingly passing it." But the crime of larceny also consists in knowingly stealing the goods of another. If a man actually does not know that he took and carried away my goods, how can he be guilty of larceny or any crime?

Judge Brinkerhoff, in the Nichols Case, 8 Ohio State, evidently recognizing the inconsistencies in the Pigman case, sought to confine the rule there laid down, to a class of cases where a *peculiar* knowledge was an element of the guilty act. Knowledge and intent are essential elements in all crime. A person can not be held criminally responsible for doing an act he did not *intend* to do, or an act he



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did not know he did. Judge Brinkerhoff, however, desiring not to enlarge the rule, endeavored to escape from the absurdity of his reasoning by the contention that evidence of drunkenness might be admitted to rebut the presumption of guilty knowledge in cases where a peculiar knowledge was an element of the guilty act; that is, a knowledge requiring nice discrimination and judgment, such as the passing of a counterfeit bill; and he also extends the rule to cases where deliberation and premeditation are necessary ingredients of the crime, as in murder in the first degree; but it seems to be overlooked that a man may deliberate almost instantly—that the human mind frequently acts with astonishing rapidity. It seems to me that to admit that a man who kills another while completely intoxicated, may plead such intoxication to rebut deliberation and premeditation and thus reduce the degree or grade of the offense to manslaughter, and prevent him from going further and showing that as a matter of fact he did not know he did the act, and that the same was wholly unconscious, is illogical and absurd. This latter case arose upon an indictment containing two counts-the first, stabbing with intent to kill; the second, stabbing with intent to wound. And the logical conclusion to be drawn from the opinion is, that intoxication might be shown to rebut guilty knowledge of intent to kill, but it should not be extended further, and the defendant, whether intoxicated or not, might be found guilty of stabbing with intent to wound—and this because, as the Court claims, it requires more deliberation to form the purpose to kill, than it does to form the purpose to wound-a refinement of reasoning that the ordinary mind fails to comprehend.

The Cline Case, 43 Ohio State, involved the same principles; there being two counts—one, intent to kill; the other, to wound. The Court below followed the logic of the 8th Ohio State, but Judge Okey, unable to follow that reasoning said, "No reason can be given why evidence of intoxication might not be considered with reference to the felony charged in the Second Count, if it could be considered with reference to the felony charged in the First Count. In making such distinction, the Court erred." In other respects, Judge Okey substantially follows the 8 Ohio State.



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In the syllabus of the Cline Case, it is gravely stated that "in *some* cases evidence of intoxication is admissible to show that no crime has been committed." But why not in all cases does logically appear.

The whole difficulty with the situation is this: Courts recognize that intoxication is easily simulated, and is often voluntarily induced for the sole purpose of nerving a cowardly and wicked heart to a firmness requisite to commit a crime previously determined upon; and undoubtedly if intoxication could be generally pleaded as an excuse, a person desiring to commit a crime, might first provide for his defense by laying in a comfortable supply of the excuse.

Admitting these considerations, however, only shows that the rule of our courts is based upon policy and expediency, and not upon reason or right, and this confession detracts much from our vaunted assertion that the Law is an exact science.

To get a better point blank view of our subject, a rifle shot at the theme, as it were, it may be well to briefly review responsibility for crime, legally considered. Statutes of New York provide that "no act done by a person in a state of insanity can be punished as an offense;" and in France the penal code provides that "there can be no crime if the accused was in a state of madness at the time of the act." And generally, where we find the Legislature dealing with this question, the language used is substantially the same, except in Germany, where the code says, "An act is not punishable when the person at the time of doing it was in a state of unconsciousness or of disease of mind by which a free determination of will was excluded." The difficulty we meet here, is to determine the precise meaning of the word, "insane," and who are included, who excluded from responsibility by the term. An examination of the adjudicated cases in England, France, Germany and the United States, show a substantial uniformity as to the legal meaning of this word. In short, the legal definition of insanity is practically this: If the accused did not know what he was about, if he did not know the act was forbidden, if he had not the power of volition over his own acts, he was insane in the eyes of the



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Law, and therefore irresponsible—or, to state it differently, if, at the time of committing the act, the accused was laboring under such defect of reason, from disease of mind, as not to know the nature and quality of the act he was doing, or if he did know it, that he did not know he was doing wrong, or if he did not have the power to resist, he is not responsible and should be acquitted. The rule is very clearly and succinctly stated by Mr. Dudley Field, to be this: If the accused was not capable of knowing and refraining, he was not responsible. This legal definition of insanity differs from that held by medical men who hold, and rightly, that sanity passes into insanity, and insanity into sanity as gradually as night passes into day, or day into night-and that, therefore it is impossible to draw a line between the two conditions. The legal test is rough, but it is practical, and is perhaps, more suitable to present social conditions than the medical test. Taking this test as our guide, can it be said that a man who is completely and fully under the influence of intoxicating liquor, to such an extent that he can simply gibber and stagger along, knows what he is about, and if he does something, can it be said that he knows the nature and quality of the thing or act that he does? Or can it be said that he knows that the thing he does is wrong, or has he sufficient will to refrain from doing it? If negative answers must be given these inquiries, why is that man not legally irresponsible? answer is, that such a rule would be dangerous, because it would be taken advantage of by the wicked and depraved. Granting that to be true, and thereby admitting the impotency of the Law to detect such cases, can any good reason be assigned why the rule should not be extended to the man of previous good character and blameless life who, through some misfortune becomes intoxicated and commits a crime while in that condition? The intoxication of which I speak, of course, is that phase of inebriation which is expressively denominated "dead drunk," or muddled semioblivion. The law holds that a man in such a condition is incompetent to enter into a contract or make a will—18 Ill. 283. And Pothier says, "Drunkenness, when it goes so far as absolutely to destroy the reason, renders a person, so



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long as it continues, incapable of contracting, since it renders him incapable of consent." Incapable of consent, means that he no longer has will or volition, and if a man is incapable of consent, is he not also incapable of intent, and as there can be no crime without intent, how can a man be held criminally responsible for doing an act he never intended to do? The reasons given for a contrary opinion are a confession that the law is incapable, in some instances, of determining motive and fixing and exposing crime. Ah, but says Baron Alderson "that voluntary species of madness which it is in the party's power to abstain from, he must answer for." But suppose it is not in the power of the man to abstain, what then? Why, he must be punished because he voluntarily brought about the conditions which deprive him of free will and volition. And yet onanism is a voluntary act that leads, when persisted in, to insanity, as do other voluntary acts of a perverted sexual character—the reason in every instance is lame and impotent. Periodicity of inebriety is now generally recognized by medical men as well as by all informed persons. It seems that everything in nature tends to become periodic. progress of animal economy through all time is evidently marked by periodic changes and reversions-in fact, periods seem to be a basal arrangement in nature, and it is not difficult to conceive how a grafted habit should follow, to some extent, "in its mode of existence, the tendencies of that upon which it is grafted." A learned writer upon this subject says that even volition, which seems to be independent of conditions, becomes periodic. "Habit is always busy making rust in the locks of character which are not used." Hence, we have the periodic drinker, from causes other than heredity. That being true, it must be admitted by all who know anything about the subject, that the frequent drinker suffers from actual cerebral disease; that alcohol, constantly used, so increases the action of the brain that it first degenerates into constant irritation, which is followed by real inflammation. This condition lasting any length of time, results in diminished delicacy and elasticity of cerebral texture. The coats of the vessels become thickened and loose their transparency. In short, there





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results a diminution of all the healthy functions of the brain. Can these pathological changes take place without a corresponding diminution of mental capacity? Certainly not. Dipsomania, as a phase of insanity, is now generally recognized, and whether this condition is the result of the periodicity of inebriation or of heredity, or both, it is well understood that the dipsomaniac is as powerless to resist the impulse and desire to drink as is the homicidal maniac to resist the desire and the impulse to kill, or the kleptomaniac the desire to steal. Then why should there be a distinction in favor of one and against the other as to legal responsibility? It will not do to say that the dipsomaniac has lucid intervals, and is only insane at times, for the man afflicted with folie circulaire, a well recognized species of insanity, also has lucid and rational intervals, the disease being recurring, the insane and the sane periods following in a circle strongly marked by periodicity and regularity.

Speaking on this subject before the House of Commons, Dr. Crichton Browne, after detailing how habitual drunkenness passes into dipsomania, says: "I may mention an analogy which occurs to me. We know that self-abuse is a voluntary act; we know also that it frequently passes into what is called Spermatorrhea, which is perfectly involuntary, and so I believe that in the case of habitual drunkenness, which is first voluntary, the vice may become involuntary and a disease." If this is true, and I firmly believe it is, to hold a real and genuine dipsomaniac legally responsible is inhuman and barbarous. But how is society to be protected, you ask? Certainly the dipsomaniac should be restrained, but his jailer should be a physician, and the jail a hospital or an asylum. When a man is no longer the ruler or shaper of his own conduct—when his organism rules him with "the tyranny of a despot who is ruling with the caprice of disease," it is the healer, and not the avenger, that should be called in. It won't do to say the man is blamable for becoming, voluntarily, an habitual drunkard. It may have been the result of chance. One protracted drunk leads to another, in accordance with Goethe's law that "in order to spend on one side, nature is forced to economize on the other." Many a man has become drunk the first time by



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mere accident or chance. The headache, the thirst and other symptoms of the return to sobriety, or the coins of pain that he had to pay for the last night's pleasure, may have been so hard to bear that he sought refuge in the poison which produced the ills, knowing that what gave pleasure yesterday, can do it again to-day. Thus, one single, accidental and unintentional drunk, may lead to periodicity and dipsomania. 'To say that society cannot protect itself from evils of this character without recourse to cells and cages, which are fit for wild beasts only, is a confession that the social relation is of human origin, and that society does not contain within itself the power to progress and evolve along humane lines. It is an admission that the doctrine of Hobbs, homo homini lupus, that man is to man a wolf, is correct, as well as an assertion that the doctrine, homo lupo homo, that man should be humane even to the wolf, is a mere altruistic dream.

I believe that society is of God, and capable of vast development along lines characteristic of its divine origin. If this were not true, and if the hangman and the jailer are to be always with us, I, for one, would feel like endorsing Walt Whitman's indignant protest: "If rats and maggots end us, then alarum! for we are betrayed."

To hold that a man should be punished for the commission of an act he never intended to commit, that was committed unconsciously, and that he would recoil from and abhor if conscious, is indeed a practical exemplification of the doctrine that man is to man a wolf. From evils of this kind, I believe, society can and should protect itself without recourse to inhuman and barbarous methods.

Intoxication in itself is twin brother to insanity. Notice the progressive stages of intoxication: First, a diffused glow, spreading from a central heat, then a feeling of comfort and satisfaction which causes the world, even to sad and depressed man, to appear to be a sort of paradise. Thought is rapid, so is the pulse, then a slight confusion of thought occurs, but the hilarity continues, the spirit is buoyant, the tongue nimble; but shortly the words stumble, the tongue stammers and the words are indistinct. Next comes giddiness, the muscles are no longer controlled by the brain;



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the man sees double; as for instance, Pitt and Dundass were drinking port. On entering the Commons, Pitt said: "I cannot see the speaker, Harry, how with you?" "Not see the speaker, William, I see two."

Now follow abrupt, spasmodic, almost automatic movements of the limbs; there is no longer a concatenation of impressions conveyed by different nerves; the speech thickens; the patient is ready to take offence at the slightest or no provocation whatever; a point is now reached where memory fails to take cognizance of anything that happens, though the patient may still seem rational; speech now fails as does the power of voluntary motion, and last comes a sort of coma, insensibility and hideous sleep. Before this sleep reason is as dead as inert matter, and to say such an unfortunate being should be held responsible for an act committed just prior to the hideous sleep, is not in consonance with the mercy and humanity that mark the close of this century.

What I propose, is this: That it be provided by law

I.

That any person who commits a crime wholly purposeless and motiveless while in a state of complete intoxication shall be held legally irresponsible therefor, provided the previous life of the person has been blameless, or that the person had previously borne a good reputation and character.

II.

That true dipsomania be recognized in law as insanity, to the extent that for all acts committed by the dipsomaniac while in a state of complete intoxication, he shall not be held responsible.

III.

That in all cases where the law makes an offence to consist of an act committed with a particular intent, complete intoxication shall excuse from responsibility, provided the consequences which do actually follow the completed crime do not occur. For instance, shooting at with intent to kill, assault with intent to rape, and such cases, no responsibility shall attach unless the crime was fully consummated.





CLINICAL REPORT OF THREE CASES RECENT-LY SEEN IN OBSTETRIC PRACTICE REQUIRING CRANIOTOMY.*

BY HUNTER H. POWELL, M. D., CLEVELAND, O.

Case I. Bridget -, age 19, Irish, unmarried, admitted to Maternity Home, April 8th. On May 14, early in the morning, labor began. The water came away at 1 p. m. My assistant, Dr. Parke, was in attendance. Pains of moderate severity continued through Wednesday, Wednesday night and Thursday morning. The pelvis was found to be normal. Softening of the neck was complete. but the head, which presented in the first position, made no progress at fixation in the brim. Dr. Parke had noted in his early examination the absence of the perineum, which he could not reconcile with Bridget's assertion that she was about to be delivered of her first child. She afterwards confessed that she had given birth to a child, now two and a half years old, that she had no one in attendance at the birth, that she had gotten up on the tenth day, feeling but a slight soreness about the genital parts, had found no difficulty in retaining feces unless diarrhœa was present. Thursday, May 15, at 7 p. m., I visited the woman; examination confirmed the diagnosis of Dr. Parke. Since 3 p. m., the pains had been severe, prior to this time, but moderate. There were no evidences of exhaustion; it was impossible to determine why no progress was being made by the head. It was decided to try the influence of chloral, and wait a few hours, hoping the head might become fixed, and justify the use of forceps. At 11 p. m., as no progress had been made, it was decided to effect delivery at once. The woman was placed upon a table and put thoroughly under the influence of chloroform. Dr. Parke and three of the house staff of Charity Hospital assisted. Attempts to apply the forceps failed; a careful examination with the hand revealed a hydro-cephalic head, which at once explained the difficulty. The head was perforated and delivered with the cranioclast. On account of the absence of the perineum and most of the sphincter, it was predicted before operation that the recto-vaginal septum would be torn, and so it was found. The septum was torn up an inch and a quar-This was immediately repaired with fine *Read before Cleveland Medical Society, October 25th.



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sutures, a large one being passed from without, bringing the remnants of the sphincter together. The bowels moved spontaneously on the evening of the second day, and daily movements afterwards by the administration of sulphur and bitartrate of potassa. The stitches were removed on the seventh day, when the septum was found perfectly united, with a remarkably good sphincter, considering the previous condition. Highest temperature attained, 101 deg. Patient made an uninterrupted recovery and sat up on the twelfth day.

Case II. Mary H. —, aged 33, Irish, admitted to Maternity Home, July 18. She anticipated confinement at any hour. The first two pregnancies had terminated in premature deliveries, the last two went to full term, but in both instances labor was difficult, requiring artificial extraction, both presented by the breech, but were still-born. Early in the morning of July 20, labor came on, pains continued moderate during the day, the cervix softened and the bag of water protruded in an elongated form, the presenting part remained high up and could be touched with difficulty. At 10 p. m., I saw the patient for the first time and got from my assistant, Dr. Mabley, the history as given. No progress had been made since morning. The woman was placed upon a table and put under the influence of chloroform. Dr. Mabley and three senior students from the medical department of Western Reserve University assisted. The abdomen was markedly pendulous, the pelvimeter showed the conjugate about three and one-half inches. By digital examination, a head was diagnosed, free above the brim, by passing my hand well up into the vagina. I broke the membranes with the intention of turning, if necessary. With the discharge of the water, the cord came down by carrying my hand higher up into the womb, it came in contact with a second head and revealed a case of locked twins, although both heads were above the brim. I endeavored by bi-manual manipulations to bring the first head into the brim, but with only partial success. With Dr. Mabley's aid, making supra-pubic pressure, I endeavored to grasp the presenting head with the forceps, but failed. Pulsation ceased in the cord, and immediate perforation of the head was decided upon. It was done with exceeding difficulty. On account of the position, the cranio-





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clast was applied with the same difficulty, and delivery accomplished. The head of the second child soon became fixed at the brim, and the bag was ruptured. Chloroform was discontinued and time given for the expulsion of the head. As progress was very slow, the forceps was applied and the child delivered. It was still-born—just why, it was impossible to determine. Both children were girls. One weighed six and one-half pounds, the other six pounds. The placentæ were quite distinct. The woman made an uninterrupted recovery.

Case III. Mrs. H—, German, age 35, -—, patient of Dr. H-. I was called on the morning of August 1. The following brief history was given me. She gave birth to her first child ten years ago. It was a breech case, and was delivered with great difficulty. It was still-born and weighed eleven pounds. The two subsequent deliveries were also difficult on account of the large size of the children. She claimed each had weighed twelve pounds at birth, and are now living. The present confinement, she said, was fully two weeks over time. Dr. H- had been in attendance for twenty-four hours; labor had come on in a normal manner and a head presentation had been diagnosed. The waters came away early. For ten hours previous to my arrival, pains had been severe. The cervix was thoroughly dilatated, but the head failed to advance. Forceps had been applied twice with the interval of an hour, and all justifiable strength employed to extract, without moving the head. I placed the woman upon a table and put her under chloroform. The pelvis was found to be normal, the fœtal heart could not be heard. With my hand well up in the vagina, I could make out an unusually large head. The womb was in tonic contraction. The conditions all favored the view that the child was dead; the head was scarcely fixed at the brim and yet it was impossible to move it upward. It was deemed best to make one more trial with the forceps. With the more favorable position of the woman to aid us, the effort was a failure. I then perforated the head and delivered with the cranioclast. After the delivery of the head, I required assistance from Dr. H--in extracting the shoulders, on account of unusual breadth. The child weighed fourteen and one-half pounds, exclusive of brains and blood lost, giving a total weight of fifteen pounds.

HEADACHE.*†

BY ALBERT R. BAKER, M. D., CLEVELAND, O.

Mr. President and Members of the Cleveland Medical Society:—Headache! What a fruitful source of human misery, and yet there is a remedy for much of it that the general practitioner often fails to use. I have prepared a brief classification of headaches which may not be a strictly scientific one, but I think it will appeal to your judgment from a clinical standpoint.

1st: Headache of fever. I presume you all know more about that than I do. And as my time is limited, I pass to those with which I am more familiar.

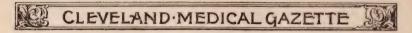
2nd: Headache of organic brain and spinal cord disease. I do not know that there is anything in the localization of brain disease that can be determined by the position of the headache, and yet there are certain things connected with headache that are very characteristic of brain disease. You are all familiar with the headache of meningitis. The headache of brain tumor is characteristic; it is the persistent headache that does not let up. And so we might say of the headache of cerebral abscess and other gross lesions of the brain. Very frequently earache and headache are mistaken one for the other. The intimate connection between the ear and the brain is not generally recognized and acted upon by the profession; and I presume I would not be far away from the truth in the statement that most cases of cerebral abscess and meningitis have their origin in the ear.

3d: The headache of anemia. This is a characteristic headache with which you are all familiar.

4th: I have placed under the head of Toxemic Headaches a number of headaches, the list of which might be extended indefinitely.

Uremic headache, which is present in Bright's Disease and in diabetes, is familiar to all of you. It is not infrequent that the patient's condition is not discovered until he comes to the oculist to be fitted with spectacles.

^{*}Address before the Cleveland Medical Society, October 25th. †Reported by J. S. Cadwalader, Stenographer.



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Then the characteristic headache of malaria, of syphilis, of gout, of alcohol, and the acute dyspeptic headache, which comes from being out late "o' nights." That following anesthesia and also that of bad air are all toxemic headaches. I suspect that a great many of the headaches that are attributed to bad air are due to errors of refraction, but I should be sorry to say anything that would excuse poor ventilation.

5th: Headaches of eye strain. I have put first under headaches of eye strain that of migraine, ordinary everyday sick headaches. Last night, instead of writing this paper, as I ought, I spent much time trying to find something in the books about migraine. In none of the text-books could I find the eyes mentioned as a cause of sick headache. They describe all sorts of ocular symptoms, of haloes, of temporary blindness, of luminapara, speak of mysterious causes, and elaborate difficult and obscure nervous conditions of hyperæmia and anæmia, but never suggest that the eyes may cause it. I believe that the ordinary sick headache very frequently has its origin in eye strain. I could recite cases by the scores of sick headache that have been cured by spectacles. Put on the glasses and the headache disappears, take them off and it returns. A school teacher here in town had headache Friday afternoon as regularly as the Friday came. She was in bed all day Saturday and often unable to go to church on Sunday. Monday she went back to school and did the work pretty well all week, but on Friday afternoon the headache came back and incapacitated her for all mental or physical work for one, two or three days at a time. She put on a pair of glasses and she did not have a headache for two years. One day she broke her glasses; spent several hours in reading . and the next day had a sick headache. That migraine is caused by eye strain is a fact I hope you will carry home with you.

Under the same heading put Hemicrania. This I believe to be closely related to sick headache. These cases are usually called neuralgic; they occur five times as frequently in women as men. The peculiarity of both is that they are periodical. They are very closely related, and I



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believe that the cause in both is the same, and can be cured in the same way. Another numerous class of headaches for which I know no better name than nervous headaches. These are very largely, if not wholly, due to eye strain, and can always be benefited if not cured with carefully adjusted spectacles.

Still another class, the dyspeptic headache. Constipated bowels, coated tongue, poor digestion, constant headache. I do not think that all of these come from eye strain, but my experience has been that by putting on glasses, many of these patients tell me they are cured of the constipation as well as the headache.

Another class, the Uterine. Nearly every woman who has a persistent headache is sent to the gynecologist. After the gynecologists have secured all the money these patients have, they come to the oculist. I wish you general practitioners would send a few of them to the oculist first while there is a little money to be had. We would cure some of them without removing the ovaries.

Headaches of occupation. The headache that comes from using the eyes constantly. Such as that of the dressmaker, the watch maker, the book-keeper are very common. It is a mistake to suppose that all cases of headache from eye strain necessarily mean error of refraction, and can be cured with spectacles. A change of occupation may be the only remedy.

School headaches. It is surprising how much headache school children have. During vacation they are free from headaches, but return upon entering school. They are nearly always due to errors of refraction.

Then we have a large class of headaches that could be mentioned that I have put down as Unclassified. The headaches that so many people have, that the doctors have treated unsuccessfully. They have become tired of doctors and of medicine, and simply bear and suffer it. Headaches that make bad citizens, bad husbands, bad wives, bad children; some go insane, others commit suicide. These headaches are often due to some error of refraction which ought to be corrected.

From this long list I am sure you will appreciate some



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of the reasons why the eyes of people who suffer from headache should be examined. I wish to warn you not to expect too much from spectacles. It is altogether probable that in the majority of cases the eye strain is but one link in the chain of causes and its removal will prove but one step toward the cure, so that when you send a case to the oculist it should not be with the expectation that the prescription of glasses will cure all the ills from which he suffers. It is a mistake to tell your patient that you have done everything that medicine can do, and if spectacles will not cure him, nothing else can be done. The oculist is simply your ally; your assistant, if you please. He may help you in making a diagnosis. May find an obscure brain disease, a meningitis, an embolism. And in nearly all of the cases there is a neurotic habit needing tonics, rest, sleep, change of air, change of occupation; so that the services of the oculist is only incidental in the treatment of these cases, and should so be recognized. Many of these patients are so constituted that they will suffer about so much pain each year. They need the constant care of a physician. If the family doctor, or the specialist, does not give it, then the quacks will.

There are certain fallacies in the minds of the laity in regard to the use of glasses that you should correct. The most frequent is that if they once wear glasses they must always wear them. There is only one condition in which this is to a certain extent true, and that is in cases of presbyopia. The old person will probably always have to wear spectacles. This is the only condition in which it is necessary that this should be so. After the recovery from cases of depressing disease, either acute or chronic, there are times when the accommodation is weak. Patients wear the glasses for a few weeks and throw them away. They regain health and the glasses are not necessary.

There is another class of cases not unusual in which we prescribe atropin in order to adjust glasses. The patient comes complaining of headache; we prescribe atropa.

* * The rest that they get from the use of the atropa is a splint for the eyes, such as we can not apply to many other diseased organs. The headache disappears, and they decline the spectacles we so carefully adjust. If we have a

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diseased stomach, we must keep on using it. Formerly when patients had a diseased eye, they were shut up in a dark room. It is very seldom now we have occasion to put a patient in a dark room, as we can secure better rest for the eye with atropin.

This matter of fitting glasses ought to be taken out of the hands of the peddlers, jewelers and opticians so-called. I believe that every doctor ought to know enough about the eye to fit glasses much better than these fellows do. I believe every doctor ought to be able to use the ophthalmoscope. I know it would be of much more use to him than his clinical thermometer. The medical students that are being educated in our medical schools to-day are going to be able to do that, and I fear that some of the older men will suffer if they do not keep up with the pace set by the students in our modern medical colleges with the four years graded instruction.

UPON THE ETIOLOGY OF RHEUMATIC TETANUS.

BY T. CARBONE, DOCENT IN PATHOLOGICAL ANATOMY; AND E. PERRERO, ASSISTANT TO PROFESSOR GRAZIADEI.

(From the Pathological Laboratory in the Humbert I. Hospital at Turin.)

Translated from the Centralblatt für Bakteriologie, Bd. xvIII, No. 7, Aug. 81, 1895, and read before the Pathological Journal Club of the Medical Department, University of Wooster, at Cleveland, Ohio, by Mr. Morris Schott.

After Nicolayer, Rosenbach, Carle and Rattone had determined the infectious nature of traumatic tetanus by their experiments, it was naturally expected that their results would be applied to the etiology of rheumatic tetanus.

Notwithstanding the fact that the intensity of the phenomena and the time of incubation are shorter in rheumatic tetanus, still the symptomatology in both forms is identical. The influence of changes in the weather which plays the chief role in the rheumatic form of tetanus is, according to the older and newer observers, (Larrey, Cullan, Dupuytren, Schmucker) also a factor of great importance in the development of the traumatic form.



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In the idiopathic form the prognosis is not always so good as is generally believed; Jaccond states that cases of recovery are reported as rare exceptions. On the other hand, a mortality of 90.5 per cent is recorded in the Franco-German war in cases of wound tetanus, and a percentage of 31.25 in cases of tetanus which were caused by exposure to cold.*

The mortality of the endemic form in the warmer latitudes (Guinea, India, Antilles) is recorded to be 6-7 per cent of the total mortality, from which fact conclusions can be drawn as to the relations which the disease bears to the effects of simple colds or climatic influences.

The absence of external wounds through which the tetanus-virus could have entered the body, the negative terminations or lack of bacteriological examinations in cases of rheumatic tetanus, and the more favorable prognosis in this form of tetanus, are the arguments of those who deny the identity of the two forms. That in examining the patient the wound is liable to be overlooked is not accepted by the supporters of the negative view, as they claim that the wound must of necessity be a deep one, and therefore easily discovered. The tetanus bacillus, not having the ability of forcing its way through the healthy skin (Sanchez Toledo, Villon,) and, (according to investigations by Sormani) the disease not being called forth through the channels of respiration or digestion, we would be compelled in view of the opinion of these experimenters to recognize the individuality of rheumatic tetanus. Upon these grounds of evidence as a support, Dr. Tomassini relates a case of rheumatic tetanus, and clings to its individuality, while Crisafulli, at the International Medical Congress, at Rome, denies this.

Tetanus neonatorum and tetanus puerperalis, which belong to the traumatic form, and are caused by the bacillus of Nicolayer and Rosenbach in common, are excluded from the question.

The defenders of the identity of the two forms in question no doubt overlooked the most weighty factor, namely: the positive bacteriological results.

Verneuil, who is thoroughly convinced of the unity of *The references given in the original are here omitted. (Translator.)

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the two forms in question, records (in the Semaine Medicale, No. 3, 1888,) a case of tetanus contracted by the way of the mouth, but without speaking of any bacteriological examination; and at a meeting of the Paris Academy of Medicine, (March, 1893,) records a case of tetanus in a woman who suffered from angina, and who also had an abortion, in which the results obtained by a bacteriological examination by Sanchez Toledo were negative.

The only recorded case of tetanus resulting from an injury of the nose is by Arcangli, who makes no mention

of a bacteriological examination.

Barth treated a patient successfully with Roux's antitoxin, in whom the infection probably occurred through the pharynx. Fages observed lobular pneumonia in a case of (spontaneously developed) tetanus, but does not mention culture experiments.

We therefore consider the case here mentioned as very important, since it clears up, to some extent, the unsettled question of the etiology of idiopathic tetanus.

A. G., 38 years old, railroader, married, is received on April 24th, 1895, at the King Humbert Hospital in Turin. Has no hereditary disease, drinks wine to excess, has had no previous serious illness. His occupation exposes him to the different changes of weather. His present sickness is stated by the patient to date from April 19th, as on the day named he was exposed many hours to an unusually heavy rain. First symptoms: chill: fever; rheumatic pains; afterwards difficult deglutition; trismus; stiffness in the neck, spinal column and extremities; persistent bad cough. Patient

denies having received any kind of injury.

Status præsens:—Well developed, strong man. Congestion of the spasmodically distorted face, which has a cynical expression. The jaws are firmly closed, so that the mouth cannot be opened. Neck perfectly rigid. Opisthotonus. The lower extremities stiff, the upper free. Sensibility normal; cremastric, abdominal, and plantaric reflexes diminished. Reflex of the right patella stronger than the left. Heart: nothing suspicious. Lungs: symptoms of grave bronchitis. Urine: Sp. gr. 1016, acid, no albumen or sugar. Pulse 88. Respiration 24. Temperature in the evening, 37.5-37°C. No evidence of injury on skin or visible mucous membranes.

The case is diagnosed as rheumatic tetanus. The therapeutic treatment consists of enemata of salicylate of





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soda and chloral hydrate. Isolation. At first the muscular contractions are of rare occurrence, but on the 26th they appear with more frequency. The unfavorable progress of the case shows itself by the heightened temperature, which varies between 38° and 38.4°C.

Worse on the 27th, temp. 39.2°, and the patient dies

suddenly at 1 o'clock P. M.

The autopsy, 18 hours after his death, shows the following: meningeal membranes edematous, a little hyperemic; lateral ventricles somewhat dilated; cerebral cortex edematous; gray brain-substance distinctly hyperemic. Hyperemia still more marked in the bulb and spinal cord. The chest and abdominal contents show nothing noteworthy except the lungs. The lungs show unmistakable signs of a rather intense bronchitis. The larger bronchi are filled with considerable reddish mucus, and their mucous membrane appears swollen and congested. On section and pressure, small, white, thick drops appear on the surface of the lung substance. Nothing abnormal in the trachea, mouth, pharynx,

larynx or nares.

Bearing in mind the general belief that in rheumatic tetanus the entrance of the tetanus bacillus is effected through solutions of continuity so slight as to be easily overlooked, we examined the skin most thoroughly, but could not find the least trace of injury. On the right ear alone we discovered a very small crust, probably caused by scratching. With this crust we immediately inoculated two mice, but without any effect. As the lungs showed a pronounced bronchitis, we wished to see if the foci of development of the bacilli were not contained in the bronchial tubes; accordingly we took, under aseptic precautions, some of the mucus from the larger bronchial tubes of the right side, and with it inoculated two mice. With the same material several agar stab-cultures were made; and a small amount of the material was transferred to sterile bouillon, which was then heated for half an hour, at 80°C., and from this some flasks of bouillon in hydrogen atmosphere, and some deep gelatine inoculations were prepared.

After two days the inoculated mice showed the usual symptoms of tetanus, and on the third day they died of this infection. At the place of inoculation a small quantity of pus had formed, which, in cover-glass preparations, showed the presence of thin, long bacilli; amongst which were some with end-spores. Mixed with these forms were a large number of diplococci which, on further examination, proved to be Friedlander-diplococci. With the material obtained from the place of inoculation from both mice we inoculated



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two more animals of the same species, and produced well-marked tetanus. From these animals the pus from the site of inoculation showed sparing numbers of "drum-stick" bacilli; and this pus was used to inoculate other mice. The animals last inoculated died in 24 hours, without tetanic phenomena, and numerous Friedlander bacilli were found in their blood on autopsy. No doubt these Friedlander bacilli caused death in these mice before a virulent form of tetanus had been produced.

We thereby arrived at the conclusion that the tetanus bacilli were contained in the bronchial mucus in their most virulent form, though to make the matter certain we wished to obtain these bacilli in pure culture. The cultures in gelatine, conducted under anaerobic conditions, showed the same long bacilli which were not different in any way from those obtained from the place of inoculation in the mice; the spore formation was, however, very slow, showing only after 15 to 20 days had elapsed, and the "drum-stick" bacilli were very few in number. The development of the bacilli in the deep gelatine stab was still slower; in a few tubes a slight growth could be observed at the end of a month which liquified the gelatine very slowly. In these cultures also only a few spore-bearing bacilli were found.

Struck by the slow growth and sparing number of sporebearing bacilli in our anaerobic cultures, we determined to see if the number and character of these spore-forms could not be in increased number in an *aerobic* culture.

It has been stated that it is quite possible to preserve the Nicolayer bacillus in the atmospheric air, and that it will retain its highly virulent properties.

The development of the aerobic cultures, and the spore-formation was very rapid in all of the culture-media, and showed a growth of fine branches radiating from a stem-like center in the gelatine stabs. The specimens prepared from these cultures showed, even after three days, a rich supply of typical "drum-stick" bacilli. In our case the tetanus bacilli showed a decided preference for aerobic growth. In agar cultures kept under aerobic conditions and inoculated directly with the bronchial mucus, besides the "drum-stick" bacilli with many spores, we also found the Friedlander bacilli in great numbers. Injection of small quantities of





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the aerobic culture material into mice and guinea-pigs always produced the fatal form of tetanus.

We tried to isolate the Nicolayer bacilli by aerobic plate-cultures on gelatine, but however often we diluted our material, we always also obtained a growth of Friedlander diplococci. At last, by leaving the gelatine in its natural acid state, we gained our purpose; as by these means we obtained a slow growth of small white colonies which, by transplanting in the usual media, developed a pretty, fast-growing and spore-forming aerobic tetanus-culture.

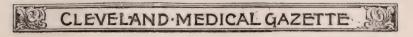
Wishing to test the virulence of this last growth, we found that none of these pure cultures had any influence on inoculated animals, although we used large doses. This is not surprising, as it is well known that the tetanus bacilli sometimes lose their virulence in early artificial cultures (Belfanti), and we had lost considerable time by the failure of our experiments in the isolation of the aerobic tetanus bacilli, the agar puncture of our culture being about 20 days old before we were crowned with success.

We believe that our diagnosis of the tetanus bacilli is, without doubt, correct, as we have caused tetanus by continued inoculation in several animals; then we found at the place of inoculation the presence of spore-forming bacteria, and separated a pure morphological culture of Nicolayer bacilli, which is, in our opinion, proof sufficient.

Accepting the fact that the tetanus bacillus can be cultivated in aerobic as well as in anaerobic conditions, under which condition did it develop in our case?

Toledo and Veillon explain the growth of the artificial cultures of the tetanus bacilli in the presence of air, because of their mixture with other bacteria. Penzo has showed that the bacillus of malignant ædema, which has always been considered as the most typical obligative anaerobe, can also be cultivated under aerobic conditions when it is associated with other bacteria.

Regarding our case, we must remember that in the bronchial tubes the air is plentiful, often renewed, and that the small amount of oxygen which could have been absorbed by the Friedlander diplococcus, was at once replaced by atmospheric air. We have seen further, how slow and poor



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our growths were in the absence of air, and how energetic they were under aerobic conditions. Upon these grounds we believe that we had, in this case, to deal with a purely aerobic vegetation-form of the tetanus bacillus.

We do not wish to assert that in all cases of rheumatic tetanus the primary focus of infection is invariably in the bronchial tubes; it is possible that under favorable conditions these bacteria can develop in the mouth, tonsils, or pharynx, etc., (the digestive tract excepted.) Nor can we state that the rheumatic tetanus is always induced by the aerobic vegetative-form of the Nicolayer bacillus. It is possible, however, (and our experiments lead us to the conclusion), that in the majority of cases a pure culture of tetanus bacilli, under aerobic conditions, either do not produce their specific toxines, or produce them in small quantity and of little virulence. Only when they are mixed with other bacteria can they produce their specific toxines under aerobic conditions.

From the preceding we can only conclude that in our case the localization of the tetanus bacilli was primarily in the bronchi.

We hope that other experiments of this nature will follow ours, so that the present uncertainty of the etiology of the idiopathic and traumatic tetanus will be set at rest.

SEVERAL CASES OF DIPHTHERIA INDICATING THE VALUE OF EARLY ANTITOXIN TREATMENT.

BY A. P. OHLMACHER, M. D., OF CLEVELAND, O.

If there is one feature of recent antitoxin statistics more striking than another, it is the result which attends the early application of the treatment. Every careful observer who has had a large experience in the use of the serum is ready to agree with Behring when he predicts that the mortality from this disease can be uniformly brought below 5 per cent. wherever the remedy can be administered within the first forty-eight hours of the disease. In proof of this assertion we have no very large figures at present for the





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reason that the treatment is only rarely instituted at an early period. In his recent admirable study of antitoxin statistics, Welsh (the Johns Hopkins Hospital Bulletin, Nos. 52-53, 1895) finds records of 222 cases of diphtheria treated with antitoxin on the first day with 5 deaths, or a mortality of 2.2 per cent. Even though these figures are not large, compare them with those (loc. cit.) given after the sixth day of the disease, in which the death rate in 104 cases treated with antitoxin was 33.7 per cent!

There are several reasons why we have so few early cases of antitoxin treatment. Occasionally the physician is not called to see the case of diphtheria until it is well advanced. Again he is called early and fails to make a diagnosis because he does not apply the bacteriological test. Or, in the hopes of gaining a cheap kind of credit for bringing a case of the disease to a successful termination with his own particular line of treatment, he wastes the precious time that would insure success with the antitoxin, and then calls for the remedy in time to protect himself and to secure discredit for the new treatment. Furthermore, there still exists in the minds of many physicians a dogged prejudice against the treatment that will not permit them to even give it a trial, and these men will not be moved by the arguments that have convinced Virchow, Vierort, Strumpel, and a host of the master-minds of the profession.

The following cases are selected out of a series of over sixty cases of diphtheria treated during the past six months by the writer with the antitoxin prepared in his laboratory last spring. The cases are selected because, aside from those seen at the Summit County Children's Home at Akron, they are the only ones in which it has been my good fortune to administer the antitoxin early. It will be noticed that with one exception, all of these early cases occurred in families in which one or more severe cases of diphtheria had been treated.

Two unsuccessful cases are also recorded in this connection merely to indicate the source of the infection in the early cases, and these cases must not be considered in a statistical relationship with the others.*

*As stated above, these cases are selected out of a series numbering over sixty, merely for illustrative purposes. I have refrained from publishing the complete series simply on account of the smallness of the number, though I may here say that the results bear out the generally favorable showing made in the antitoxin treatment.





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CASE 1. Esther F., age 4 years, a robust child, was seen by me, May 2, 1895. She had been ill seven days previously with what her attending physician (a homeopath) called "febrile catarrh," that is, she had shown more or less fever, together with symptoms of nasal "catarrh." A day or two preceding my visit, it was discovered that the child's throat was filled with a false membrane, and a diagnosis of diphtheria was accordingly made. The child presented all the symptoms of a profound intoxication-high, feeble pulse; temperature 102° F.; anæmia; weakness; restlessness; extreme irritability, and occasional stupor. Her urine was found to be highly albuminous. The whole throat, and a portion of the soft palate were covered with a yellowish, stinking, somewhat softened membrane. A profuse acrid and offensive discharge issued from the nostrils, and the anterior nares were lined, as far as the eye could see, with diphtheritic membrane. The nostrils and lips were badly excoriated, and an odor of decomposition was emitted from both the throat and nose. A diagnosis of advanced diphtheria of the nasal and pharyngeal cavities, probably secondary to a membranous rhinitis, was made; since the attending physician insisted that no membrane was visible in the throat during the early days of the illness. A culture-test gave a diphtheria bacillus-staphylococcus mixed infection. An absolutely unfavorable prognosis was made, and the use of antitoxin discouraged. Upon the pressing appeals of the parents, however, I finally consented to inject the serum, and a dose of 10 c.c. was accordingly given.

May 3. The child seems much brighter, and a reduction of 0.5° in temperature, together with some improvement in the pulse, is noted. The urine shows increased albumen. A second injection of 5 c.c. is made. Twenty-four hours later, the pulse was decidedly weaker and more rapid, and the child very weak and restless. Another injection of 10 c.c. of serum was made, but the patient gradually became weaker, stupor supervened, and death ensued about ten hours after the last injection, from the overwhelming sepsis. It seemed to all of us that the life of this child had been prolonged by the serum treatment, which was, however, unable to repair the damages that had already been wrought by the toxæmia.

CASE 2. Charles F., 2 years of age, brother of Esther, (Case 1,) was removed to his grandparents' home as soon as it was suspected that his sister had diphtheria. On the morning of May 3, the boy was taken ill, and he was at once returned to his home, where I found him at 2 o'clock in the afternoon.

The patient lies in bed, tossing from side to side, picking at the bedclothes, muttering in a delirium, and exhibiting almost constant spasmodic twitchings of the muscles of the face, arms and legs. His face is deeply Temperature 104.8°† pulse 140+, and feeble. The throat is intensely hyperæmic and swollen, and a thin, greyish veil of beginning exudate can be seen over the whole left tonsil. A swab is taken from the suspicious area in the throat, from which a diphtheria culture, precisely similar to that in Case 1, is subsequently obtained. The attending physician gives a wholly unfavorable prognosis. As I had only 10 c.c. of antitoxin with me, half of it was injected into the boy, and the balance into his sister.

†With the exceptions of Cases 3 and 4, all temperatures here recorded were taken in the rectum.





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Twenty-four hours later, I found the child out of bed and *playing about* the room. His temperature was 100°, pulse 90, and there was no trace of increase of the exudate in his throat. No more antitoxin was given to him, and in a day or two he was in his usual good health.

CASE 3. Lottie M., age 22 years, was infected from her four year old niece who was recovering from a severe attack of true diphtheria treated by me on the fourth day, with antitoxin.

October 6. The patient complains of headache, backache, chilliness and some fever; and a sore throat, with a small patch of false membrane on one tonsil. I obtained a true diphtheria culture from this exudate.

October 7. The patient feels much worse this morning and has taken to bed. Temperature 102°, pulse 110, both tonsils covered with a uniform, whitish exudate. A dose of 5 c.c. of antitoxin is given, which is followed by the usual reaction in twelve hours.

October 8. Patient feels much better. Temperature 100°, pulse 98. Membrane has not spread beyond the limits observed yesterday. Another injection of 5 c.c. is given.

The patient improves steadily. On the third day, after the first injection, the throat is entirely clean, and convalescence follows without interruption.

Case 4. Hattie M., 22 years old, is infected by sleeping with her sister Lottie, (Case 3), two weeks after the latter's throat is clean.

On the morning of October 29, she awoke with a sore throat, headache, backache, fever, and general malaise, and discovers two or three patches of membrane on the left tonsil.

Dr. H. W. Rogers saw the patient at three o'clock in the afternoon, noted the usual clinical symptoms of beginning diphtheria, and made a culture from which he obtained diphtheria bacilli in four hours, and kindly reported his results to me. At nine o'clock in the evening, I visited the patient and gave an injection of 5 c.c. of antitoxin. At this time, the left tonsil was almost covered with a thin membrane which spread from four or five thicker centers; and a patch about three-eighths of an inch in extent was seen on the right tonsil.

The usual reaction of antitoxin was noted in twelve hours. Twenty-four hours after the first injection, all the patient's symptoms were improved, and the exudate in the throat was held completely in check. Another dose of 2.5 c.c. of serum was given. In forty-eight hours from the first injection the throat showed no trace of membranous deposit, and recovery was perfect.

Several control-cultures gave assurance of the correctness of Dr. Rogers' early bacteriological diagnosis.

Case 5. Alma F., 3½ years old, was taken ill early in the morning of October 27. Dr. H. W. Rogers saw the patient at 11 a. m., and suspecting beginning diphtheria, both on account of the clinical symptoms and from the prevalence of the disease in the neighborhood, he prepared a culture from the throat. At 6 p. m., he obtained a preparation which he believed to be of true diphtheria. At 8 o'clock the same evening, I examined another preparation from this culture and confirmed Dr. Rogers' diagnosis of a diphtheria bacillus-streptococcus infection.

The patient was seen by me at 10 o'clock in the evening of this, the first day of the disease. Her temperature was 102.8° , pulse 140, no albumen

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in urine. Both tonsils are covered with a grayish, somewhat fætid exudate. A dose of 5 c.c. of antitoxin is injected.

October 28. At 8:30 a. m., temperature 101.6°, pulse 130. At 8:30 p. m., temperature 100.6°, pulse 128. Another injection of 2.5 c.c. is given. Membrane had not spread or thickened.

Dr. Rogers reports that the child made a rapid and perfectly favorable recovery, and that the membrane had disappeared on the third day.

Case 6. Louis S., age 2½ years, was seen on the afternoon of Nov. 2, with Dr. F. Fliedner. A six-year old brother of the patient had just recovered from a severe attack of diphtheria of a week's duration, without antitoxin treatment; and another brother, four years old, had died the previous night of laryngeal stenosis on the fourth day of his illness, eight or ten hours after the first injection of antitoxin.*

This boy had been suffering from a coryza, but had not complained of illness till this morning. He was seen by me at 4 p. m., when his temperature was 103.6°, and pulse 130. Several grayish patches of membrane on each tonsil, from which the culture-test gave a diphtheria bacillus-staphylococcus preparation. An injection of 5 c.c. of serum was made.

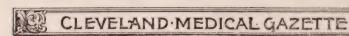
November 3. At 2 o'clock this afternoon the child is playing about the house. His temperature is 99.6° . The patches of membrane have almost disappeared from the tonsils.

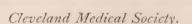
A second injection of $2.5\ \mathrm{c.c.}$ is made, and the child recovers without further trouble.

It seems to me that extensive comment upon these cases to physicians who have had a clinical experience with true diphtheria under the old methods of treatment is superfluous. Five cases do not make a basis for argument either pro or con, and I regret that it has not been my good fortune to see many more such early cases of diphtheria. If to the cases here recorded are added twelve similar early cases treated last spring with identical results, in the Summit County Children's Home with my antitoxin, the number becomes more respectable. As it is, what conscientious physician stands ready to assert that he has seen five cases of (bacteriologically proven) true diphtheria, comport themselves like these? Has any physician a line of treatment that will absolutely inhibit the spread of the diphtheritic membrane from its first application, and effect complete removal of all traces of exudate in two or three days, and insure an improvement in all the clinical symptoms after the first twelve hours, together with a perfect recovery in three or four days?

In the light of all our observations upon diphtheria, such results as those just recorded seem almost miraculous.

^{*}Intubation, which should have been employed to tide this patient over the period of impending suffocation until the beneficial effects of antitoxin were obtained, was refused by the parents.





This has been the opinion of every physician who has seen one of these early cases. Were it not for the prevalence of a severe, and often fatal type of diphtheria side by side with these cases, and for the positive results of the bacteriological diagnosis, one would surely doubt that he was dealing with diphtheria. Even the false or "micrococcus diphtheria" presents a more-severe and prolonged clinical picture than that shown by these early cases of true diphtheria treated with the antitoxin. In fact, the treatment of early cases of the disease by this marvelous specific remedy becomes a positive pleasure both to the physician and to his patrons, since it robs this dreaded malady of all its terrible features.

No matter how this record may be interpreted, it must at least be admitted that it adds five more cases to those early cases already recorded in the literature in which the mortality is about two per cent. Why any physician will refuse to give his patient the benefit of a harmless mode of treatment with such evidence as this before him, is difficult to conjecture; for it seems that in so doing he is assuming a moral responsibility that would, in many other lines of practice, amount to actual illegality.

If these cases do not form the basis for an argument, they do at least contain two suggestions to intelligent physicians. One is to give every patient with a suspicious sore throat the benefit of the rapid bacteriological diagnosis. The other is to give the patient the benefit of the antitoxin treatment as soon as a diagnosis of true diphtheria is established.

CLEVELAND MEDICAL SOCIETY.

REGULAR MEETING, Oct. 11th, 1895.

The President, Dr. Wm. E. Wirt, in the Chair.

Dr. John M. Ingersol was elected to membership.

REPORT OF CASES AND EXHIBITION OF SPECIMENS.

Dr. Hamann: I have several specimens that are interesting from the point of view of the surgical pathologist, and I shall take the liberty of presenting them.

One of fracture of the neck of the femur in which union

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has taken place through the medium of fibrous tissue. The specimen is without history. There is considerable atrophy of the neck of the bone. The fibrous tissue can be very plainly seen between the head and the remaining portion of the neck.

The second specimen is one which was kindly presented to me by Dr. McLean of Elyria, O. It was taken from a case of tertiary syphilis. It shows the wormeaten appearance. Multiple fractures had occurred. I think this bone had been broken two or three times. There is some union by means of fibrous tissue. It is interesting from an anatomical point of view as it illustrates the third trochanter.

The last specimen is one taken from a dissecting room subject, and I had an opportunity of seeing the arm before it was macerated. There has evidently been a fracture of the internal condyle and this part of the bone has been displaced upward. This arm presented the typical "gunstock" deformity when the soft parts were in place. There is an illustration of this in the last edition of Hamilton's "Fractures and Dislocations."

DR. W. J. Scott: How reduce that dislocation?

Dr. Hamann: If I understood Dr. Scott it was, how proceed to reduce the dislocation of the condyle. To overcome the deformity, Allis suggested treatment in the extended position. By putting it in the extended position, reduction was said to be accomplished. I do not know that there is any special method of overcoming the deformity. The displacement, one would naturally think, would be downward, owing to the action of the flexor muscles arising from the internal condyle. Such is not the case, however. I do not know of any well adapted method of retaining the fragments in accurate apposition.

PROGRAM OF THE EVENING

Was opened by an address on Headache by Dr. A. R. Baker. See page 77.

DISCUSSION.

Dr. Knowlton: I have been troubled a good many times with these cases and have occasionally unloaded them onto the ophthalmologists and specialists on nervous diseases. Sometimes they have come back to me benefited and sometimes they continued to worry me greatly. I have no doubt

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but that there is a vast deal of truth in what Dr. Baker has said. I have seen a number of cases that have been greatly benefited and some entirely relieved by the use of glasses. I am inclined to the belief that many of these cases of migraine sick headache have their origin in disorders of digestion and malassimilation, and I think that sometimes treatment rather supports that view. For instance, we pay strict attention to the diet and to the improvement of the general health and we often find a great deal of improvement in cases where the eyes have not been used to excess. I can recall many cases, in the country, for instance, farmers' wives whose occupations, from day to day, would be about the same, and where the eyes would not be strained, vet these periodical headaches returned, and in some of those cases it is highly improbable that the trouble resulted from error of refraction.

I think there is something in the ideas as presented by Dr. Rachford, of Cincinnati, in a recent article on Leucomain Poisoning in which he details some experiments in nervous and epileptoid attacks and his method of treating these cases has resulted very satisfactorily. I am inclined to think that we have quite a large percentage of chronic cases of migraine that are due to faults of digestion.

DR. SCOTT: I agree with Dr. Knowlton's opinion about many of these cases. I used to live in a very malarial country, and have seen those intermittent neuralgias coming once a day, or every other day, or every third day, and spectacles would not help them a speck. Good square doses of quinine in a little while would improve the general health, and this class of headaches would be removed at once. And so with children in school. You notice that almost always before they get the eye trouble they have some trouble with digestion. They become pale and anemic. They are worried by lessons and the dread of examinations. If they are taken out before accommodation is seriously interfered with, or before the eye-strain has begun, they would get well without glasses. I think that I have seen this frequently in little girls. Take them out of school. Their general health is worth more to them than the schooling they get under such circumstances. After they stay out of school a while, their headache is gone whether they use glasses or not; and so I think it would be better to improve the general health under such conditions rather than to depend on the application of glasses and let them keep on going to school.

I agree with Dr. Baker that the general practitioner should become familiar enough with the ophthalmoscope to



discover some of the influences of disease upon the eye. If he finds the veins much enlarged and the arteries small, then there is some fault somewhere in connection with the cerebral circulation. * * * Twenty years ago I commenced using the ophthalmoscope to my own satisfaction, and sometimes to the advantage of my patient. I have sent many cases to Dr. Baker; when I could not determine from my own experience, and yet there are cases that I can determine. * * * In many of these cases little experience will inform a man who observes the conditions that

there is something wrong.

In cases where you have hemianopsia I could determine that with my slight experience—or possibly that he has a tumor somewhere, or some disease of the optic apparatus or optic nerve that produced this condition. * * * If he has been syphilitic, it would be a very important matter to determine whether it was a tumor, because strong, vigorous treatment may cure it. After it goes so long, no treatment will cure it. That is an important matter. As a great many people have a little syphilis, this may be a very important subject for that class of people. If we were all able to use the ophthalmoscope a little, I think it would be of great advantage to the profession, as well as to the patient.

There is just one point that I wish to Dr. Baker: call attention to, and that is, that the amount of headache, the amount of pain, or amount of discomfort, such as we have from eye-strain, does not correspond to the amount of error of refraction. In fact, where we have a large error of refraction we do not usually have these painful symptoms. It is where we have a slight error that we are more apt to have headache and other troubles. The only explanation I have been able to give may be illustrated in this way. we hold our arm out steadily all the time, we can not hold it very long; but we could take a heavy ax and swing it all day long without much effort. A person who has a large error of refraction, gives up and does not try to see distinctly; but the person who has a little error of refraction, keeps his eye toned up to that point he sees well. He makes a constant effort, and headache and other reflex troubles result.

"Some Unusual Cases in Obstetrics."

By Prof. H. H. Powell.

DR. Powell: I was called upon at a late day by the Secretary and asked to help fill up the program of the evening with report of a few cases. I determined last night to select from recent cases of interest, three in which I performed craniotomy. The selection of craniotomy cases was

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chosen simply because in these latter days we hear very little about the operation; almost as if it had gone to oblivion; very little is heard of craniotomy. Within a year, I think I have had as many as usual to perform for one cause or another, and I am under the impression that these operations have been judicious, and if I am wrong, this is a very good place to be corrected.*

In connection with these three cases of craniotomy, possibly, I might say a word in order to bring out a little discussion, if some of you have not already decided on

points you are going to take issue with me.

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With reference to the case of hydrocephalus, as a matter of course * * * the thing to do was to perforate; that will not be questioned; there was no alternative.

With reference to the case of twins and the unusual condition of this locking of heads above the brim. Even here, had both heads presented in this contracted pelvis, the first one would have been prevented from getting over and becoming fixed, although time sufficient had been given. After examination had proved that this was the difficulty, I think it was impossible to deliver these children without * * * If, however, one had living twins perforating. in that position, would the operation not be Cesarean section, with the present status of the operation and the proper surroundings. If such a condition could be found a little earlier, would not the operation of Cesarean section be justified? There would be nothing in such a case to prevent rescuing(?) the two children, and I can see that the woman might be in good condition for operation. Of course, the operation of symphysiotomy would give no assistance in such a condition as this. With this prolapsed cord ceasing to pulsate, of course the thing to do was craniotomy, and a most difficult thing under these conditions.

Aside from these comments, there is the possibility that some of you gentlemen may think that the cessation of the heart beat of this last case would not justify one in doing craniotomy, but would prefer symphysiotomy * * * it must be remembered that forceps had been applied during the night, and that such cases are not favorable ones for symphysiotomy, whereas they are very favorable for

craniotomy, so far as the woman is concerned.

I apprehend that there may be a diversity of opinion about these cases and shall be glad to have criticism.

DISCUSSION.

DR. CAMPBELL: It is a little hard to criticise without being on the ground and helping to diagnose the case.

*See page 74.



The first one, of course, there is no objection to. The second case, the twins, there is a question just how they were locked. By some manipulation it might have been possible to turn one of them feet foremost. In the last case, I would like to inquire just how large the head was, what the presentation was, and what the relation of the head to the brim of the pelvis, how much the head would have been pressed out of shape in being delivered, and also how much force was used in the attempt to use the forceps.

DR. FRIEDMAN: A man who had had the case over 24 hours only under chloroform was able to decide it was hydrocephalus. I presume that he is aware that Prof. —— is able to make a diagnosis at $8\frac{1}{2}$ or 9 months, and if I am correct in my memory, in only 9 cases out of 125 was the diagnosis incorrect. Now if this statement is true, it is a wonder why it took so long for the doctors to decide if this was hydrocephalus. I have had many cases of confinement in which I have never been able to make any diagnosis without direct examination.

F. S. CLARK: I have been very much interested in the report of these cases. It seems to me it is a very fine point to decide whether a man should do craniotomy on a living child, or symphysiotomy, or Cesarean section; but it seems to me when the child is dead, under any circumstances craniotomy is to be preferred to a high forceps delivery, and better than high forceps where the head is not engaged, because we have then only the mother to think of. Under these circumstances the danger to the mother is greater during a high forceps delivery than during a craniotomy, because there is greater danger of tearing the parts than to deliver a diminished head with the cranioclast.

* * it was never thought of doing a high forceps delivery on a dead child. And craniotomy gives the least danger to the mother.

In the case of the twins, the question came up in my mind just how much the lessening the diameter of the head by perforation was going to relieve the locking. If the child were dead, we would not think of symphysiotomy or Cesarean section.

DR. TUCKERMAN: There is one point in the relation of a living and dead child to a labor, and that is the aid which the live child constantly renders to its own delivery. You place your finger on the head and you will find the living child is twisting its head around and around to find the easiest place for its head, and the easiest place for its

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head is always the way out. We have always noticed this. But one of the obstructions to the delivery of a dead child is the fact that the child can not help itself in that way. I think the doctor's position is correct, that with a dead child craniotomy is the easiest way out.

DR. SAWYER: I do not know that I have anything different to offer. The fact of craniotomy being applicable to dead children, is received everywhere, the question is whether craniotomy on living children should be performed. That, of course, depends upon circumstances. If the operator is at hand, I think that statistics show that Cesarean section is more desirable than craniotomy, but craniotomy can certainly be performed by men who would hesitate to undertake Cesarean section. It can be done without injury to the mother, recognizing, of course, that there is not such a degree of traction as to render the operation inadvisable.

In regard to the active efforts of the child being made, I would suppose that was very largely dependent on the degree of contraction of the womb; and I do not know that the turning of the head here and there is any result of the child's efforts to free itself from its present situation. I do not know that I have anything new to offer. It seems to me, the whole discussion of craniotomy turns on whether the child is living or dead. Where one might be competent to do craniotomy, he would not feel himself competent to do Cesarian section. I do not know that there is any criticism to make on the cases of Dr. Powell. He does not say whether he made any effort to ascertain whether the child were dead or living until he introduced his hand. All that is a matter, perhaps, of each one's individual notions, but it would seem to me it would have been entirely proper for him to have made an external examination to discover the condition of the circulation of the child, and quite possibly he might have discovered the fact that there were two children instead of one if he had made a careful external examination.

DR. POWELL: Relative to this question of the influence that the death of the child has upon labor. It is pretty well recognized that there is an influence. There is less tonicity to a dead child. A living child, by its tonicity, aids delivery, and also by its movements, incites action of the womb.

The point suggested by Dr. Campbell, as to whether twins could not be turned. I doubt whether the doctor really meant that. You can not do very much in turning



twins, especially with the heads locked. remembered that these were not the classical locked twins. There the locking is in the true pelvis—here the locking, as we call it, was above the brim, and so firm (?) as to make it utterly impossible to move that head to the brim, and then the prolapsed chord settled the matter, so far as that child was concerned, and made perforation the only hope of

getting the second child alive.

With reference to the diagnosis, I will state that Dr. Mabley said to me, that he thought it was possible that he had twins there a day or two before, believing he had heard two fœtal hearts. We made careful examination at the time of operation, but the relations had very much changed. With the labor pains, things are very much mixed, so that it is not always an easy matter to determine twins. Twins are generally a surprise to everybody, although I have diagnosed twins a little while before confinement.

With reference to the position of the head in the last case, it must be remembered that attempts at delivery had been made at various times through the night. Forceps had been applied by a pretty strong man. The head was in the first position, but had made no progress in entering the brim. It was fixed by the tonicity of the womb. I made all the efforts with my forceps that were justified after that

history.

With reference to the question of diagnosis of hydrocephalus, I think the doctor stated it had been diagnosed as early as 8½ or 9 months. I think it is possible—the gentlemen who live in great maternities and see those cases right along and make it a sole study—I think it possible, that perhaps in quite a large per cent. of cases, there are men who are skilled enough to diagnose hydrocephalus, but I think the per cent. of such men is extremely small. And this whole question of diagnosis by external manipulation is one which requires observing work, and there are comparatively few men who are very expert at it. I am free to confess that I believe there are men who are skilled enough to come very accurately at it, but I have seen very, very few of them who did not have to rely on an internal examination.

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MEETING OF THE HEMPSTEAD ACADEMY OF MEDICINE.

Portsmouth, O., November 4, 1895.

The Society met at 1 p. m., at its hall on Chillicothe street, with the president, Dr. O. C. Andre of Waverly, O., in the chair. Members present during the meeting: Dr. Andre, Waverly, O.; Drs. John F. Morgan and J. L. Gahm of Jackson, O.; Dr. J. L. Taylor, Wheelersburg, O.; Drs. Cotton, Vernier, Edwards, Halderman, Fulton, Titus, Burgess, McKerrehan, Ray, Jr., Pixley, Allard and Sellards of this city, with Drs. L. Keller and Nat. Moxley, Ironton, O.; Dr. Brown, Beaver, Pike Co., O.; S. Kelley, L. Marcum and medical student Ray of this city; Dr. Jackson, dentist of Jackson, O.; Prof. R. Harvey Reed of Columbus, O., and Prof. Rufus B. Hall of Cincinnati, O., as visitors. Minutes of last meeting were read and approved. Under the head of clinics, Dr. Halderman presented a child from whom he had removed the entire os calcis of the left foot. The trouble was of a tuberculous nature, both parents having died of consumption. About one-fourth of the bone which was exhibited was destroyed. The operation had been followed by the best results—a straight foot with only the slightest limp, and a general building up of the system. Dr. Andre presented a case of a man aged 75, which was diagnosed by the gentlemen present as one of malignant mammary tumor, and its removal with the knife advised. Dr. McKerrehan presented a young man, aged 17, which was diagnosed by the gentlemen present as "appendicitis," and an immediate operation advised. The Board of Censors reported favorably upon the application of Lorin Hall, M. D., for membership, and upon ballot, he was unanimously elected.

Prof. R. Harvey Reed of Columbus, O., read a paper entitled: "A Few Suggestions to the General Practitioner as to His Duty in Treating Hernia." It was thought to be so good that, on motion, the Dr. was requested to have it published in the Columbus Medical Journal, which he promised to do. A vote of thanks was also given him. Prof. Rufus B. Hall of Cincinnati, O., read a paper on "Pelvic Inflammations of Females." It was a fine paper, one that ought to be read by parents with marriageable sons and daughters and all young men contemplating matrimony, if they wish their brides who come to them virtuous and healthy, should remain happy, healthy wives and mothers, as nine times out of ten the fault lies with themselves.

M. S. PIXLEY, M. D. Secretary.





Correspondence.

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LETTER FROM LONDON.

Editors Medical Gazette:—I was up to the Samaritan Free Hospital the other day and saw G. Granville Bantock, M. D., F. R. C. S., perform several laparotomies. When he had finished, he told us that he never used antiseptic solutions of any kind. He said: "I use simply warm water as it is drawn from the faucet." This almost unheard of declaration interested me, and I have taken pains to look up the results obtained, and think perhaps your readers might be interested.

The following table shows the results from the first performance of Ovariotomy in the Samaritan Free Hospital:

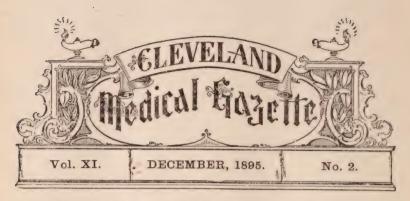
Results in Ovariotomy.	Cases.	Recover-	Deaths.	Mortality Per Cent.
Before 1868 To end of 1876. To end of 1894. For years of 1892, 1893 and 1894.	394 1,678	82 296 1,471 183	31 98 207 10	27 % 24 % 12 % 5 %

In 1894, there were 70 operations for ovariotomy and no deaths. Dr. Bantock's results are said to be the best in London.

Respectfully,

HENRY J. HERRICK, JR.

London, Oct. 18, 1895.



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CHANGES FOR ADVERTISEMENTS, or addresses, must reach us not later than the fifteenth day of the month, preceding issue to be corrected in the current number.



OUR COLLABORATORS.

The Editors take pleasure in introducing as collaborators for the GAZETTE certain gentlemen whose names appear in this number. There are more to follow. They need no introduction to the profession of Ohio as practitioners in their several departments. This is another step in a series of advances which we have projected and begun to execute. The domain of medicine and surgery is so vast and its various fields have so extended their boundaries that it is impossible, from one, two, or a few points of view, to take in their whole length and breadth. Therefore, it has long





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been our desire to associate with us a staff of collaborators of known ability, who will continually search the various fields and contribute their findings to the readers of the GAZETTE. This will assure each month the very best that is to be found in literature, with original comments and practical suggestions added. Not that we shall depend alone upon our special corps of collaborators for reading matter; as in the past, we solicit contributed articles from writers everywhere. In this sense, we look upon every reader of the GAZETTE as a collaborator with us. Original essays of merit, reports of cases, correspondence, society proceedings, when not too long and wordy, and news of interest to the profession are always acceptable. Let each reader endeavor to add something to the general store. The GAZETTE is what the profession make it.

WHO CONTROLS THE "GAZETTE."

It may be of interest to all of our readers to know that in associating themselves with a publisher, the editors and owners of the GAZETTE have not relinquished their right to control every page and line that enters into the composition not only of the reading matter, but of its advertisements as well. The proprietors of this journal are both physicians, and know very well the ethics of the profession. We do not claim to be infallible in the matter of judging advertisements, but have had considerable experience, and as to our good faith with the profession in this respect, we are willing to let our record speak for itself. We challenge any one to produce an advertisement that has appeared in the GAZETTE during the ten years of its life, that would not be considered admissible by any high class medical journal in this country. In truth, it is recognized by advertisers and by readers that the fact that an advertisement appears in the GAZETTE is a guarantee of the respectability and reliability of the house advertised. Over and over again have we been complimented by readers, by advertisers, and by brother editors upon the cleanness of our advertising pages. been in the past, so it shall be in the future. We have month after month refused advertisements for ethical reasons, and will continue so to do.





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THE SANITARY REVIVAL IN CLEVELAND.

The numerous meetings and almost innumerable lectures, essays, and newspaper articles, both contributed and editorial, that Cleveland has recently endured without depopulation, is something remarkable. Discussions from the medical and scientific, the pseudo-scientific, the medicomechanic, medico-legal, medico-engineering, and the medicopolitical points of view have been heard and read, and many phases and combinations of phases of opinion have been elicited.

There have been expressions of opinion and advice from scientific and sanitary experts, from city officials, from tax-payers who will have to bear the brunt of the expense if certain improvements are made, and also from Tom, Dick and Harry, who know nothing of the subject, though they may vote for or against it at their own sweet will. Even the ladies have taken an interest, and had their feelings harrowed up by sights and odors, and conditions which they never before realized were in existence. One lady says she had to stop bringing the morning paper to the breakfast table as it spoiled her appetite. We've had garbage for breakfast, sewage for dinner, and drain for supper all summer. We are certain that the alarming accounts of the horrid lake water have driven some citizens to habits that will give the Water-Can't-Trouble-U workers harder work next year.

The most of the papers and discussions of value have appeared at length in the GAZETTE and are familiar to our readers; but now that the revival has shown a lull in its excitement, it gives one a chance to wonder how it all came about. Is it that we are so much worse sinners against sanitary science than we were last year or any previous year? Is it possible that our condition of danger or degradation is so much deeper than it ever was before? On the contrary, the city was never healthier than it has been of late. In support of this statement one can have not only the reports of the health office as to the number of deaths and the number of contagious diseases, but the statements of physicians all over the city. It has been a notably



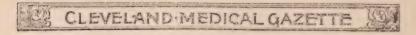
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dull year for practice with the majority of doctors in Cleveland. Many physicians of long established practice acknowledge that they could scarcely remember a duller year, and particularly a quieter summer than the one just past. We have made numerous inquiries. One experienced practitioner says, "It's the worst in the past fifteen years." Another says he doesn't "see how the new beginners can make a living without some other source of income." The traveling agents who visit all the doctors say they see very many empty waiting rooms and idle doctors. Many of the druggists have been ready to despair. Of course, one finds a few physicians who are "rushed to death" in the midst of general quietude, but these are the exceptions. We believe the physician who does not answer quite truthfully the honest inquirer is an exception; but there may be little eddies of wind here and there even in a calm.

Now it is a very curious fact that in such a healthy season we should have been struck with such a sanitary reform fad. When you study the revival a little you observe that no matter where or by whom else a meeting was held for the discussion of this subject, the doctors were in it. They were right in it. In the main, they were right in it. Doctors are nearly always right when they agree upon a point, and always in the lead upon questions of public health. This has been the proud distinction of the medical profession in all times and places. But doctors have some odd ways and habits, grown out of the peculiarities of their traditions and their business. When practice is lively, they attend to practice; they don't stop then to post accounts and collect bills; they don't go to places of amusement much, nor to church any too much. When professional visits are many, social visits are few. But business lulls. The community grows "distressingly healthy," then all these neglected matters, the bills, the friends, the church, the theatre, the medical society, the subscription to the journal can be attended to.

Among the rest, the reputation for philanthropic interest in public hygiene and enterprising citizenship must be kept up, and when could be a better time to do it than when there's little else to do?



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So let the student of natural history, when he comes to the subject of the habits of genus doctor medicinæ, make this note. "There are two periods when the doctor displays unusual activity and emits loud and peculiar noises to warn the public. First, during or preceding virulent epidemics, and second, when the community is uncommonly healthy."

Some may probably state it like this: There are two varieties of doctors who make great exertions for sanitary reforms, a, very busy doctors, and b, very idle doctors.

A BACTERIOLOGICAL LABORATORY FOR THE CLEVELAND HEALTH DEPARTMENT.

At last a conviction seems to be dawning in the minds of certain doctors and editors of the daily papers, that Cleveland should have a bacteriological laboratory in connection with its Health Office. This idea, like many other things of a progressive nature in Cleveland, has been very slow in obtaining expression, and it is quite possible that a prolonged discussion of the matter will ensue before any definite steps are taken to put the project in operation. Almost all the other large cities in the United States have led Cleveland in this departure, for New York, Boston, Philadelphia, Buffalo, Chicago, St. Louis, and even far-away Denver are among the cities that have during the past ten years established bacteriological laboratories in their boards of health. Still, when Cleveland actually does bestir itself in any enterprise, it rarely does the thing by halves, and we trust this will be the case in relation to the proposed addition to the Health Department.

It seems that the present Health Officer has exhausted all his energies in entreating the City Council to grant him an appropriation that would enable him to establish a laboratory, and it is quite likely that the whole subject would have dropped until next election time had not an alarming increase of diphtheria during the past two months redirected attention to it. No better illustration of the necessity of a bacteriological laboratory can be made than in connection with diphtheria since the introduction of the culture-test and the antitoxin treatment, and as an example





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of the operation of a properly conducted municipal work of this kind, we need only point to New York City in which the diphtheria work of the last two years has attracted world-wide attention and admiration. There is no reason why this same kind of work could not be done here in Cleveland, providing a laboratory were established and properly endowed, and this city could become the center in this work for a large surrounding territory.

The administration of this city sees the necessity of maintaining a large and expensive police department for the capture of an occasional murderer, but the Health Officer appeals in vain for a few thousand dollars to establish a laboratory for the apprehension of the host of tiny murderers that are every year claiming hundreds of victims with diphtheria, typhoid fever, tuberculosis, and other *preventable* maladies.

The educated public of this city is alive to the necessity of this innovation, and the present municipal officers would meet a hearty welcome both from the local medical profession and the people at large were they to appropriate a sum of money sufficient to place the Health Department in a position to do the work demanded of it in this day of civilization and progress.

THE SHARP SLATE PENCIL NUISANCE.

We notice again this winter that little tots first starting to school are on the streets with sharpened pencils in their hands or pockets, and the oculists are reaping the annual harvest of eyes to be enucleated. Several cases of brain injury have been recently reported in this city, with one or more deaths, and we have no doubt others have occurred that have not come under the observation of the editors. Accidental injuries from falling on sharpened pencils are not all the danger, as pencils are dangerous weapons of offence and defence, and the little fellows of six and ten years of age often do not hesitate to make use of them in their personal encounters. Why cannot the Cleveland school authorities furnish pupils with pencils and give the not-over-worked





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janitors something to do by sharpening them? This has proved successful in other cities. When is Greater Cleveland going to imitate some of her smaller neighbors in this respect?

EYE, EAR AND THROAT SECTION OF THE CUYAHOGA COUNTY MEDICAL SOCIETY.

The organization of an Eye, Ear and Throat Section of the Cuyahoga County Medical Society was recently effected. Dr. Howard S. Straight was elected President, Dr. W. E. Bruner, Vice President and Dr. John Ingersol, Secretary and Treasurer. There were eighteen present and about thirty members of the Cleveland profession have already signified their intention of becoming members. This will make a good strong section, and we have no doubt much good work will be done.



Geo. W. Crile, M. D.
PANCREATIC HÆMORRHAGE.*

The author formulates the following conclusions:

First. Pancreatic hæmorrhage is a pathological condition sufficiently characterized by a well defined group of symptoms to merit its being separately placed in nosology.

Second. It usually occurs in portly individuals, in obesity, in which the visceral vessels have suffered fatty or atheromatous degeneration. It has also been observed in subjects of syphilitic arteritis.

Third. It is characterized by a sharp, sudden abdominal pain, accompanied by acute tympanism, nausea,

vomiting, and usually constipation.

The pain is usually pigastric, radiating from above toward the pelvis, but scarcely from below upward toward the shoulder; it is increased by pressure upon the splenic region; the hepatic region presents nothing abnormal. Collapse, anxiety, chilliness, although the temperature is usually a little above normal, small and rapid pulse, embarrassed respiration.

Death usually follows in several hours or several days. If several days elapse, there are usually fatty stools in evidence, sometimes diabetes appears.

*Revue Internationale-V. Durand.



BY L. B. TUCKERMAN, M. D.

The weight of the evidence so far is to the effect that the antitoxin treatment is the treatment for diphtheria, provided that the remedy is given early in the disease, and provided that a reliable article of antitoxin can be obtained, i. e., both of guaranteed strength and free from septic bacteria and from the toxic products of putrefaction taking place between the time of the guarantee and the time when the remedy is used on the patient. In defence of the position of those who yet hesitate to use it, we must admit that so long as the element of profit and loss enters, there must always be a reasonable uncertainty in the mind of the careful and considerate man whether any given brand upon the market is wholly reliable and free from deleterious substances. Such doubts will be entirely removed only when the boards of health of our great cities or of the States take the entire production and distribution of the various antitoxines into their own hands and prepare them fresh for use as the occasion may require. Fortunately, the boards of health of some cities have undertaken that service, but in other places it might be well for the practitioner to keep on hand the various circulars of the various antitoxin dealers and let the patient or his friends read them all over and decide which article they want tried on the patient—they will be likely to know as much about it as the doctor can, and then they themselves will shoulder all the responsibility of exercising the faith in the guarantee. But a diagnosis ought to be made at the earliest possible moment in order that whatever decision is made as to line of treatment, may be arrived at with a full knowledge of the facts, and that if the antitoxin treatment is decided on, no time may be lost. Dr. H. C. Crouch of Denver, has fortunately discovered a method by which in a large proportion of cases diphtheria can be diagnosticated immediately from a cover-glass preparation direct from the swab. His method is based on the fact that in each end of a young Klebs-Loeffler bacillus there is commonly a so-called meta-chromatic granule, i. e., a granule which with a methyl green stain colors red, while the body of the bacillus colors green. He says: "If a coverglass, prepared in the usual way from a serum culture not older than twenty-four hours, is treated for a few seconds only with a one per cent. solution of methyl green, and then immediately rinsed and examined in water, very often the following will be observed: the majority of the bacilli will be stained faintly green, and contain at both ends a well

¹ N. Y. Med. Jour., Oct. 5, '95.





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defined round body much more deeply stained and of a distinctly reddish color. This is particularly striking in cultures containing mainly the shorter and uncharacteristic forms. The effect may be still further increased by the addition of other colors to the methyl green for the purpose of contrast and increased penetration. Thus a combination of dahlia with the methyl green is very effective. I have found the following mixture most successful: one part of fresh, one per cent. solution of methyl green, one part of fresh, one per cent. dahlia and four parts of water. If either of the colors predominates too decidedly, add cautiously from the other color till the right effect is obtained. The mixture improves with age. Only a second is required for staining, otherwise the stain is too intense and there is no differentiation. This action of the diphtheria bacilli at a certain stage in their growth I regard as very characteristic. At least, none of the bacteria ordinarily found in the mouth act in this way. By smearing a piece of the membrane on the cover-glass, drying and flaming in the usual way, and staining one or two seconds, the diphtheria bacilli or certain of them will present the appearance described above. Whenever I have found such forms, even if only two or three, in the direct cover-glass examination, the cultures have developed diphtheria bacilli without an exception, so that I have come to regard this reaction as of the greatest diagnostic importance. It is further of great use in detecting a few diphtheria bacilli in cultures where the number present was originally so small that the growth of other bacteria would cause them to be overlooked in the routine examination of the serum tubes. This is of special importance in the examination of secondaries. It may be remarked that the faintly stained bacteria often require a good lens and a trained eve for their detection. They may usually be rendered more apparent by two or three seconds' immersion in aqueous Bismark brown or methylene blue. By staining a little more deeply with the dahlia-methyl green, and then with blue, an appearance may be obtained almost reproducing in miniature the appearance of the red-stained spores in the blue anthrax bacilli. The Bismark brown, however, is more delicate and safer." Some cocci show meta-chromatic granules, but a trained observer would hardly mistake the appearance of two cocci in juxtaposition for the characteristic appearance of the two red granules, one in each end of a faintly green, but perfectly defined bacillus. Unfortunately these granules fade out in a few hours—no way, so far as we know, having as yet been found out whereby the colors can be fixed and permanent mounts made of the specimens. If in a given case





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we have diagnosticated diphtheria and have used the antitoxin treatment, we shouldn't pin all our faith to the specific and lose our grip on our common sense. Antitoxin has its limitations; its effect is chiefly to inhibit the growth of the membrane, and that at its base. This causes the membrane to exfoliate like a scab beneath which healthy epithelium has formed. Of course, as the bacillus ceases to grow, the production of toxins comes to an end. But, (and this is just the point we shall be tempted to lose sight of), the dyscrasia which rendered the patient susceptible to the infection is there, and the cachexia due to the absorption of the toxins formed before the remedy had time to check the growth of the bacillus is there, and we shall most likely find that in diphtheria as in scarlatina, success depends as much on the careful conduct of the convalescence as upon the treatment of the acute stage of the disease.

Evidence is accumulating to show that the earlier view, viz: that typhoid fever is a systemic blood infection is nearer the truth than is the more modern view which regards it as almost wholly a disease of the intestinal canal. Dr. A. E. WRIGHT, and Surgeon-Major D. SEMPLE, professor and assistant professor of pathology in the British Army Medical School at Netly, have been making thorough and systematic examinations of the urine of typhoid patients with a view of determining the presence or absence of the typhoid bacillus.2 They found it present in six out of seven cases. Collate this with the well-known fact of the presence of the bacillus in the spleen, and with the observations of WATHELET, showing that the true typhoid bacillus was to be detected at all in the stools of only four of the twelve cases studied, and in those four patients only four times in a total of twenty-four examinations, and even then that the typhoid bacillus was outnumbered by the bacillus communis coli in the proportion of 3 to 1, owing to the further fact which WATHELET has also shown, viz: That if the bacillus typhosus and the colon bacillus are implanted into the same tube of nutrient broth, the colon bacillus will overgrow and kill off the typhoid bacillus; put these facts together and you have a pretty strong argument in favor of the old view that typhoid fever is a systemic blood disease, and an equally strong argument against that therapeutic fad which bases the whole treatment on the idea of intestinal antisepsis alone. The conclusions of Drs. Wright and Semple, which are in brief as follows, are of great importance respecting the proper measures of prophylaxis in order to limit the spread of the disease.

1. It is true that typhoid bacilli are present in the

² Jour. Am. Med. Association, Oct. 5, '95.

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urine of patients suffering from typhoid fever, and if, as we shall see, typhoid bacilli are generally absent from the feces, it will be evident that it is the urine, and not the feces of patients suffering from typhoid fever which is responsible for the spread of typhoid infection.

2. If typhoid bacilli are constantly present in the urine of typhoid patients, it may be possible to diagnose the presence or absence of typhoid fever by undertaking a bac-

teriologic examination of the urine.

3. If it is true that typhoid bacilli are constantly present in the urine in cases of typhoid fever while they are generally absent from the feces, it will be evident that the conception of typhoid fever upon which the ordinary clinician

proceeds is an entirely erroneous one.

- 4. The working hypothesis regarding this fever, in the minds of medical men generally, favoring, as it does, the notion that this fever is an intestinal intoxication process, should be revised and substituted for it, one that will have regard to the wide range of pathologic appearances, some of which at least fit in well with a hypothesis of blood infection, such as malarial fever in man and anthrax in cattle.
- 5. If the recent observations on the almost constant absence of typhoid fever bacilli from the stools are to be trusted, the disinfection of the feces will have to rank not as an article of faith, but as a mere "counsel of perfection." On the other hand, the most careful attention will have to be given to the disinfection of the urine In some cases the urine even before incubation, is absolutely turbid with typhoid bacilli.

Nevertheless, intestinal antisepsis, if it be not pushed to the extent of antiseptic intoxication, is a good thing, and the bath treatment in selected cases is a good thing, too, and why did we wait for DR. WM. B. Noves to tell us what all of us ought to have known without telling.3 viz: that a rubber sheet, (a double one is safer), slipped under the patient, and the ends and sides raised nine or ten inches and bolstered up with any handy articles, such as pillows, books, sand-bags, boards, and the like, special care being given to arranging the corners, makes a most convenient extempore bath-tub in which the patient can be sponged, packed, sprinkled, douched or immersed, as the case may require, and that without the inconveniences and disadvantages which so often contra-indicate the use of the bath when the patient must be lifted out of bed and put into a bath-tub.



An American Text-Book of Obstetrics by the following well-known American Teachers and Specialists: James C. Cameron, M. D., Edward P. Davis, M. D., Robert L. Dickinson, M. D., Charles Warrington Earle, M. D., James H. Etheridge, M. D., Henry J. Garrigues, M. D., Barton Cooke Hirst, M. D., Charles Jewett, M. D., Howard A. Kelly, M. D., Richard C. Norris, M. D., Chauncey D. Palmer, M. D., Theophilus Parvin, M. D., George A. Piersol, M. D., Edward Reynolds, M. D., Henry Schwarz, M. D. Richard C. Norris, M. D., Editor. Robert L. Dickinson, M. D., Art Editor. Philadelphia: W. B. Saunders, 1895. Price, \$7.00 cloth; \$8.00 sheep; \$9.00 half Russia. For sale by subscription only.

The advent of this important work has no doubt been anxiously looked for by all who are interested in the subject of obstetric medicine and surgery, both in this country and abroad, from the time the well-known publisher, Mr. Saunders, first announced that he had such a treatise in

course of preparation.

To do justice to this monumental work, so superior to anything of its kind that has ever appeared in print, is almost an impossibility in a journal notice, where, for want of space, a detailed review is out of the question. Of the many excellent features of this text-book, we note particularly, first, that instead of there being given the views of but one writer, we have set forth the combined opinions and ripe experience of some fifteen of the most eminent obstetricians and teachers in this country, and furthermore, that they have taken pains to represent fully the latest advances made in the science and art of obstetrics throughout the civilized A second praiseworthy plan has been to assign to each contributor a subject to which he has paid especial attention, both in an extensive hospital and private practice; certainly a most important course to adopt in a teaching work for students, and guide for the practitioner. before have we read so clear and satisfactory an account of the diseases of the fetus and new born infant as are given in Chapters II. and V. of this volume.

One special feature in this "American Text-Book of Obstetrics" is the unusually large number of fine illustrations which it contains, there being nearly nine hundred in color and half-tone, the plan adopted in their production is thus stated in the preface. "One of the just claims of this text-book to originality is that an attempt has been made to carry out systematically the following principles in its illus-

trations:

All figures to be drawn to scale; a uniform scale to be adopted, usually one-third or one-sixth life size; in a sagittal





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section the same half always to be shown for ease of comparison; full labeling to be made on the drawing, to which should be given as much artistic treatment as would be compatible with clearness and with teaching quality. The scale of the cuts in most previous text-books, and the choice of the sagittal section—right or left—have varied. In this book the left half of the section has preferably been chosen, because it is the one made familiar to practitioners by the treatment of patients in the latero-prone posture." Some of the fine illustrations of pathological specimens contained in this work were photographed at the Army Medical Museum at Washington, D. C., and also taken from the collection in the New York Hospital Cabinet, and from the noted preparations of Piersol and Hirst. The index to this volume is very complete and well arranged for quick reference.

The preparation of this stupendous work reflects a lasting credit upon the editors, publisher, and in fact all who aided in bringing it before the medical profession, and we predict for it a demand never before accorded a treatise on

obstetrics.

DIE GESCHICHTLICHE ENTWICKLUNG DES ARZTLICHEN STANDES UND DER MEDICINISCHEN WISSENSCHAFTEN. Von J. Hermann Baas, Dr. med., Berlin, 1896. The Historical Development of the Medical Profession and of the Medical Sciences. By Dr. J. Hermann Baas.

Those physicians who are interested in the history of their profession will welcome this new work from the wellknown pen of Dr. Baas, of Worms. Many readers of his "Grundriss der Geschichte der Medicin, etc.," published in German in 1876, and translated into English in 1889, will recall with pleasure the chapters interspersed in that work relating to the internal history of the medical profession in different ages, presenting sketches rare in their novelty and replete with interesting information. The present work is devoted chiefly to the amplification and further development of this special side of medical history. Though brief biographical notices of the great lights of our profession are occasionally supplied, the aim of the author is to present rather a history of the profession than of the professors of our art, to sketch rather the development of medicine in its various departments, than the lives and fortunes of its more eminent representatives. Accordingly, the principal portion of the book is occupied with interesting details of the manners and customs of physicians and patients in different ages, the origin, development and the methods of instruction of the schools, the fees and salaries of medical professors, the





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rude manners and lawless habits of the students of the mediæval universities, the extravagances of uroscopy, astrology, magic, witchcraft and other forms of charlatanism, the medical theories which have successfully risen to importance, only to be supplanted by others equally one-sided and destined to a similar fate, the gradual development of the various departments of the one medical science, the reciprocal influence upon each other of philosophy and medicine, etc., all of which are sketched with a master hand and in a style exciting and maintaining continually the interest of the reader.

The fundamental idea of the author, in this as well as in his former work, is to present the history of medicine, not as an independent and isolated science, but as an integral part of the general history of civilization, an important factor in the development of intellectual culture throughout the world, influencing and influenced by the popular currents of thought in each successive age. This thought meets us on the title-page, whose motto-"He who knows medicine only, does not really know even that"—conveys an easily intelligible, though unfortunately rarely appreciated, truth. It is idle, however, to lament the neglect of medico-historical study which characterizes the present utilitarian age. That this neglect is due, in great part, rather to the ignorance than the willful indifference of the profession, the writer has little doubt. And this ignorance is probably ascribable chiefly to that inelastic and stereotyped educational system which has prevailed among us for ages, and is just now yielding slowly before the advance of more modern ideas. No one has more love, or a higher reverence for classical learning than the writer. Yet he fails entirely to see why the prospective student of medicine in our colleges should not gain as much of that highly lauded 'mental discipline' ascribed to the study of the classics in the instructive pages of Celsus, as from the imaginative and often erotic lines of his contemporaries Virgil, Ovid and Horace, or why, at least, as much useful intellectual training might not be acquired in the perusal of portions of the writings of Hippocrates, Aristotle and Galen, as from the witty, but often indecently suggestive jokes of Aristophanes or the dialectic refinements of Plato.

Certain it is that the average medical student of the present day would be puzzled at his final examination to tell whether Galen wrote in Latin, Greek or Hebrew, and whether Hippocrates lived in Italy, Egypt, Greece or India. Nor has the writer ever entirely forgiven his medical teachers of many years ago for a personal ignorance which over-



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whelmed him with surprise and dismay, when his unwary order to a German bibliopole to send him "the extant works of Hippocrates and Galen" materialized in the shape of twenty-odd, stout, octave volumes of Greek text, rivaling in bulk the modern cyclopædia of Ziemssen and threatening the vacuum, abhorred of nature, in his somewhat exiguous purse.

To those who desire to avoid an ignorance so glaring, the present volume by Dr. Baas will prove most useful and instructive. It is full, but not prolix, philosophical, yet not tedious, and it can be heartily commended to that large number of physicians who find it necessary to fill a yawning

medico-historical gap in their scientific education.

The book consists of 480 large octavo pages, the mechanical execution of which leaves nothing to be desired, and, what is more surprising in a German work, a copious index renders reference easy.

H. E. H.

DISEASE OF THE EAR. A Text-Book for practitioners and students of medicine, by Edward Bradford Dench, Ph. B., M. D., with eight colored plates and one hundred and fifty-two illustrations in the text. Published by D. Appleton & Co., New York, 1894.

The chapters devoted to the anatomy and physiology of the ear present the most satisfactory and up to date review of these subjects accessible to English readers. Much use is made of Prof. Gad's excellent work on the Physiology of the Ear as presented in Schwatez's Handb. der Ohren.

Much valuable space is occupied in describing the usual instruments and methods of use. Some excellent practical suggestions are made as to the care of instruments

and the securing of the histories of cases.

The chapter on functional examinations is a valuable one, he says, "that lesions of the conducting mechanism are characterized by a loss of impairment of audition for the lower notes of the scale, and as the degree of impairment of hearing increases, the lowest note which can be perceived or the lower tone limit, as it is called, becomes elevated.

The relative duration of bone conduction as compared with air conduction increases, the inversion of the ratio being more marked for the lower notes of the scale, and affecting these first, the change occurring with the higher notes in proportion, as the pathological condition increases, and consequently as the impairment of function becomes more marked.



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Lesions of the conducting apparatus interfere very slightly with the perception of the highest notes of the scale by air conduction—in other words, have very little effect upon the upper tone limit. In the same manner, diseases of the receptive mechanism are characterized by no elevation of the lower tone limit.

No change in the normal relation between the duration of bone conduction as compared with air conduction, the absolute duration of both, however, being reduced. Absolute deafness for certain notes of the scale, usually in its upper portion, thus frequently lowering the upper tone limit. This is almost invariably the case when the condition is secondary to changes within the tympanum."

Chapters five to sixteen are devoted to diseases of the auricle and external auditory canal, and present nothing

new, but serves to round off the work as a text-book.

He makes a distinction between tubal congestion and tubo-tympanic congestion that is more scientific than

practical.

In the treatment of tubo-tympanic congestion, he says he never saw harm from inflation; this is rather dangerous advice to give the beginner. He is justly conservative as to paracentesis of the drum membrane. He condemns Wild's Incision, and prefers the immediate opening of the mastoid. This no doubt will meet the approval of all surgeons who have had much to do with mastoid diseases. He recommends the removal of the membranæ tympanum and ocicles for all cases of chronic catarrhal otitis media that do not improve with other treatment. We fear that most oral surgeons are not yet prepared to undertake such radical measures. It is to be hoped that future experience will teach us how to secure better results in these hopeless cases.

It is rather refreshing to meet a New York oral surgeon who will acknowledge that there is some virtue in the use of boric acid powder in the treatment of chronic perulent otitis. His knowledge, however, of the indications for its use is somewhat hazy. He is inclined to use it too freely in acute cases, and does not differentiate between the use of it and other powders. The fact that boric acid does not usually form hard crusts as other powders do, seems to be entirely overlooked. He puts more stress on the local treatment of the ear itself than most recent authors which makes it of special interest to the specialist. The chapters on the Surgery of the conducting apparatus are particularly full and explicit, and whatever the opinion the reader may have as to the advisability of making the operation so frequently as taught by the author, the detailed directions for the performance of each

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step in the various operations can not fail to be useful. The arrangement of the work is such as to require a certain amount of repetition, but as each chapter is more or less complete within itself, it will prove valuable as a book of reference.

The author's style is direct, with little attempt at literary finish; the sentences are semetimes too long, and occasionally a second reading is necessary to arrive at his exact meaning. A number of typographical errors are noticed, which no doubt will be corrected in the next edition. Of the numerous illustrations, many are original and well executed. The colored plates add much to the value of the book.



Dr. W. J. Sheppard, of No. 72 Merchant Avenue, has returned from a visit abroad.

Dr. Julian Harmon, Warren, Ohio, is more likely one of the oldest practitioners in Northern Ohio. He was born August 1, 1824, and has been in the practice more than the ordinary length of time.

Bacillis of Typhoid Fever.—According to some recent researches by Semple and Wright, published in the London Lancet, it appears that in typhoid fever the bacilli can be found in the urine almost always, and seldom in the fecal discharges.—Wilkenson's Omaha Clinic.

The Death Rate of 2,568 cases of Diphtheria in the "Konigliche chirurgische Klinik zu Berlin," by Dr. V.

Hirsch." (Archiven von klinischer Chirurgie.)

Dr. Hirsch reports that from January 1 to July 31, 1894, 2,658 cases of diphtheria were treated. Of these, 1,396 or 52.5% died. The greatest number of fatalities occurred at the beginning and end of the year; 72 adults were treated, and 11% died. Of children under one year, 88% died, while under two years, 82.5% succumbed.

Tracheotomy was performed on 1,654 cases, of which 1,135, or 68.7 % died; 296 of these operations were performed on children, of which 92% proved fatal. There were 10

adults operated on, of which 8 died.

P. WAGNER, Leipzig.



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The Dispensary—A Disease of the Body Politic—Julius Weiss, M. D., New York, writes:

Synonyms.—Out-door department, ante and post-graduate's reservoir, embryonic specialists' and writers' El-

dorado, etc.

Definition.—A chronic contagious disease, manifested by degeneration and atrophy of the pocket-books of the bulk of physicians and druggists, and by peculiar cerebral developments in patients, as, hallucinations of poverty and delusions of getting something for nothing.

Pathogenesis and Etiology.—The chief factor in causation is the desire of building up a reputation as a specialist by increased opportunities for observation and experience and the naturally accompanying financial gain.

About twelve years ago, after a meeting of the German Medical Association on Second Avenue, a few of us retired to a cosy refreshment place, and the scheme of launching the German Polyclinic was hatched. Each colleague that joined the corporation thought it expedient to contribute \$100.00 C. O. D. Since that time the usual Board of Directors and other paraphernalia have appeared and tertiary symptoms developed in the shape of St. Mark's Hospital. Six years ago a colleague called on me to assist him in starting the East-side Dispensary, 327 East Third Street. He was shocked to learn that foreign doctors were reducing medical fees to twenty-five cents. How much better to treat people free of charge! A faculty was gathered, per capita tax of \$35.00 was imposed, and another successful institution is the result. The inevitable tertiary symptoms will follow, as a hospital is threatened. On the West Side we had considerable trouble. We had about \$25,000 (collected from philanthropic citizens.) business in the old building of the German West-side Dispensary was bad. A new set of doctors took hold of the matter, and erected a beautiful centre for pauperization in Forty-second Street, between Eighth and Ninth Avenues. From last reports business has improved considerably. These few instances will suffice to illustrate the contagiousness of the disease, and the nature of the disease germ, viz., competition and gain.

Symptoms.—These vary according to the severity of the ailment. In some dispensaries as the East Side. Good Samaritan, Bellevue, Centre Street, Grove Street, Northwestern, the deserving poor from ninety-five per cent. of the number of patients treated. In others, as the New York Hospital, Vanderbilt Clinic, Manhattan Eye and Throat, Presbyterian, New York, Polyclinic, the number of deserv-



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CLEVELAND MEDICAL GAZETTE



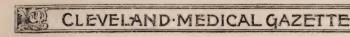
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ing poor is probably only twenty per cent. The Mt. Sinai and German Dispensaries also treat a large number of undeserving people. In the New York Hospital, out-door patients pay one dollar initiation fee. But practically, since such patients seldom return a second time, this so-called charitable institution charges as much as the ordinary practitioner. The Vanderbilt Clinic has injured the West-side practitioner very noticeably. While the purses of the attending staff undergo a peculiar fatty infiltration, those of the majority of doctors suffer fibroid changes and consequent

atrophy and shrinkage.

Therapeusis.—A committee might be appointed by our medical societies to investigate the true state of affairs in various dispensaries, and prepare a full report upon the same. Some practical remedy may possibly be suggested by such a body. The Charity Organization Society will be of great aid in such an investigation. Prophylaxis in the way of discouraging future unnecessary institutions may be tried. Above all, physicians ought to insist upon getting paid for their work, and not allow a false sense of pride and dignity to breed among the people an habitual misconception that the services of doctors are not to be paid like those of the lawyer, engineer, or mechanic. Loose business methods among physicians, more than dispensaries, create a sentiment of financial valuelessness of medical work. The very men who shout against dispensaries send well-to-do patients there for treatment by specialists. In brief, reform must come from harmonious co-operation among practitioners themselves .- Medical Record.

The Average British Practitioner is a funny creature, if we may be permitted to generalize from the samples we find revealing themselves in the columns of our London contemporaries. He never seems to know how to act in emergencies not provided for specifically in the decalogue or in "The Manners and Rules of Good Society." Some time ago the question was agitated in the Times whether, when a man met his wife's maid or the cook on the street he should raise his hat and smile, or should simply ignore her presence. Now it is a question of raising one's hat to one's rival's wife, and "Perplexed" appeals to the British Medical Journal for advice in the following terms: "A is a practitioner in a neighborhood, who, till lately, was unopposed. B comes in and sets up against A. As is customary B calls on A, but does not see A's wife during his call, and yet a few days afterward B meets A's wife in the street and raises his hat to her. A's wife tells her husband, and A calls on B and remonstrates with him, and considers his wife insulted.





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Was it an insult, or was B merely indiscreet? Allowing that it is a breach of ordinary etiquette to raise one's hat to a lady to whom one has never been introduced, is it not possible that B, in his anxiety to be courteous to A, over-

stepped the bounds of propriety?"

The answer of our esteemed contemporary is tender and judicial, but not, in our opinion, satisfactory, for it leaves the question undecided, and "Perplexed" is no better off than before. "Although," so the decision runs, "in the absence of a personal introduction B would have been more than justified by the rules of social etiquette in passing A's wife unnoticed, and, probably, under the peculiar circumstances, would have acted more prudently by so doing, still, the simple raising of his hat would not, as alleged by her husband, constitute an insult, but should be rather looked upon as a natural and courteously intended act toward the wife of a brother practitioner to whom, in accordance with the medicoethical rules, he had recently paid the customary visit of courtesy as a newcomer; and, in our opinion, A would have acted wisely in accepting it as such. Probably, however, and not unnaturally, his mind and temper were somewhat disturbed by the prospect of professional competition in his hitherto unopposed practice."

The next time B sees Mrs. A coming in the distance he should quicken his pace, take off his hat, and mop his brow as though suffering from heat and humidity. He will thus avoid the insult of passing the lady with covered head, and will not commit the discourtesy of raising his hat to an unknown lady; he will also appear to be busy, and that will make the other children feel real bad.—Medical Record.

Dead Chinamen as Freight.—A curious freight which is shipped exclusively from San Francisco to China is "fishbone," which pays \$20 a ton. It is sent in large boxes consigned to the Tung Wah Hospital at Hong Kong, but the contents of the boxes are really the bodies of dead Chinamen sent home for burial. Most of the Chinamen who come to the United States are under the care of the Six Companies, who sign a contract guaranteeing to return the bones of the dead for burial with their ancestors in the Celestial Empire, and the Tung Wah Hospital acts as the agent on this side in carrying out the agreement. They are shipped as "fish bones" in order to evade the rule of the steamship companies, who charge full first-class passenger rates for the dead. Nearly every ship leaving San Francisco for China carries among the steerage passengers a number of invalids who hope to live until they reach their native country, but several usually die on every voyage. There is an agreement



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between the steamships and the Six Companies which forbids the burial of these bodies at sea, and the latter furnishes coffins of the peculiar Chinese pattern for use in such emergencies. They are made of slabs, the first cut of the log, so that the sides and bottom and top are rounded. A dozen or more are carried on each ship, and the surgeon is furnished with a supply of embalming fluid. When a Chinaman dies at sea, the surgeon embalms the body, which is then placed in a coffin, sealed up, and lowered into the hold. The expense is paid by voluntary contributions from the other Chinese passengers, the crowd, and the stewards of the ship—all of whom belong to that race. No subscription paper is passed around, but a pan containing Chinese sugar is placed beside the coffin, and every Chinaman on board drops in his contribution, from a dime to a dollar, and takes a piece of sugar from the pan, which is supposed to bring him good luck and prolong his life. When the ship reaches Hong Kong, the coffins and the belongings of the dead are delivered to the Tung Wah Hospital, which dis-

poses of them to the surviving friends in China. Every Chinaman in the United States is supposed to be registered at the Tung Wah Hospital and with the Six Companies at

San Francisco.—Medical Record.

The Last Illness of Pasteur. Pasteur was a striking example of the fact that sometimes a person may have a cerebral hemorrhage and live many years, thereafter doing the very best work of his life. Pasteur was first attacked with a hemorrhage in 1868, twenty-seven years ago. But it left scarcely any traces, and he continued in good health until 1888, when his health began to decline. It was about this time that he was made the object of the most violent attacks from many members of the medical profession and the scientific world, on account of his claims regarding the prevention of rabies. In 1892 he had several attacks of uræmia, and at that time he was found to have some cardiac lesion. His last illness was due to a sudden accession of uræmia, with very intense dyspnæa, and a feeble and irregular pulse. He succumbed within a few hours after the attack came on .- Medical Record.

The Slowness of our System of Advancement.—The slowness with which promotion sometimes arrives in our system of advancement by seniority is illustrated by the recent "elevation" of Dr. Lauder Brunton to a full physicianship at Bartholomew's. The name of Lauder Brunton is certainly anything but unknown, yet for twenty-five years his field of energy has been limited by the walls of the out-patient room.





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Indeed, this promotion has only occurred through the institution of an extra post, and it has been calculated that but for its creation Dr. Brunton might have reached the limit of age before he had been relieved from the drudgery of the ambulatorium.—London Correspondent of the *Therapeutic Gazette*.

Keats, the Apothecary-Poet.—Into the Academy of the Immortals, that small and select body, few members of the profession of medicine have ever been admitted. In English literature we have furnished two or three to the charmed circle that surrounds Shakespeare; but, by common consent, one sits close beside the Master, the young apothecary, Keats, the centenary of whose birth all lovers of poetry have celebrated this week. Born in 1795, at the sign of the "Swan & Hoop," Moorgate Pavement, London, son of the head 'ostler, the circumstances of his birth and of his early years were by no means favorable to the cultivation of the Muses. Fortunately, at school, the influence of Charles Cowden Clarke turned the thoughts of the pugnacious lad from boxing to poetry, and before he had reached his fifteenth year Keats was an ardent student of the Elizabethans, and his fate was sealed. In 1810 he was apprenticed to Mr. Hammond, a surgeon at Edmonton. In the lithographed copies of the indentures of that date the number of specific negatives indicate the character of the apprentice to whom cards and dice, taverns and playhouses, fornication and matrimony, are equally interdicted. We know but little of the days of Keats' apprenticeship. A brother-student has left on record that "he was an idle, loafing fellow, always writing poetry." In 1814 pupil and master quarreled, and, by mutual consent, the contract was broken. It would appear from the following sentence in one of Keats' letters that not words alone passed between them: "I dare say you have altered also—our bodies every seven years are completely fresh materiel'd. Seven years ago it was not this hand that directed itself against Hammond." Keats attended the United Hospitals of St. Thomas' and Guy's for two years, 1814-1816, and in the latter became dresser to Mr. Lucas. On July 25, 1816, he passed the examination for License of the Apothecaries' Hall, then, as now, the lowest qualification in England.

A medical student capable of writing such a sonnet as the celebrated one "On first looking into Chapman's Homer" was not likely to settle down as junior partner in some suburban or city practice. While at Guy's, Keats had made the acquaintance of Leigh Hunt and other literary men, some of whom recognized the quality of his mettle. So far as

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is known, he never practiced medicine, but for four years lived, as he says, "an odd sort of life, here and there—no anchor." He had many warm friends, and his letters to them and to his brothers show great depth of feeling, and often a critical faculty of singular delicacy in one so young.

In 1817 he issued a small collection of poems, and in 1818 the more ambitious *Endymion*, which was mercilessly hammered by the reviews. An article in the *Quarterly* was for long thought to have hastened his death, but the basis for this widespread belief is chiefly the jaunty lines from "Don Juan:"

"'Tis strange the mind, that very fiery particle, Should let itself be snuffed out by an article."

In 1818, and again in 1819, he buried a brother with pulmonary tuberculosis, of which disease his mother had died. In February, 1820, he had a hemorrhage from the lungs after exposure, and from this date he began a hopeless struggle against rapidly advancing tuberculosis. In 1820 Keats issued Lamia, Isabella, and Other Poems, the volume which contains his greatest treasures. In September he sailed for Italy with his friend, Severn, an artist. During the months of January and February he was in Rome, attended by Dr. (afterward Sir James) Clark, and nursed with unremitting care by Severn, whose account of Keats' illness is one of the most touching descriptions in literature.

Racked by a hopeless passion, and consumed by an insatiable disease as the end drew near, when the "shadow of white death" was o'er him, he asked to have inscribed on his tomb the line, Here lies one whose name was writ in water. But the world has judged differently, and has taken the verdict of the man whose heart was so soon to rest beside him, and whose Adonais is an everlasting tribute to his memory.—Medical News.

The Medical Department of the University of Wooster.—Articles of agreement between the Medical Department of the University of Wooster and the representatives of the Ohio Wesleyan University have been signed which make this old and well-known Medical School an integral part of the latter University. The faculty will remain as at present. The dean, officers and members of the faculty to be elected by the faculty as at present, subject to the approval of the board of trustees.

The Ohio Wesleyan University have secured the old Wesleyan Church property on the corner Central avenue and Brownell street, opposite the present College building. The lot is valued at \$20,000 and will make an elegant site

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for a new College building, which will be erected at a cost of not less than \$40,000 in time for the opening of the next session in September, 1896. Plans for the full endowment of the school are already being elaborated.

At the Meeting of the Medical Staff of City Hospital held December 3, the resignations of Drs. B. L. Millikin and J. P. Sawyer as ophthalmologist and visiting physician were accepted, and Drs. W. E. Bruner and J. E. Darby were elected in their places.

The Cleveland Medical Library Association.—The second annual meeting of this association will be held Monday evening, December 2. The following officers were elected: President, Dr. H. E. Handerson; Secretary, Dr. W. E. Bruner; Librarian, Dr. C. A. Hamann; Treasurer, Dr. H. J. Lee; Trustees, Drs. Wm. T. Corlett, H. S. Upson, J. H. Belt, and Dr. W. E. Wirt to fill the unexpired term of Dr. I. N. Himes, deceased. A better list of officers could not have been selected, and it is to be hoped that new life will be infused into this project of so much importance to the local profession.

The Belmont Co. Medical Society met at the Windsor Hotel. Bellaire, on November 26, and discussed a very good programme.

Decrease of Deaths from Diphtheria by the Use of Antitoxin.—Mayor Strong of New York City recently received from President Wilson of the Board of Health a statement showing a considerable decrease in the number of deaths from

diphtheria and croup following the use of antitoxin.

In the tables President Wilson submits he shows that in the first, second and third quarters of 1891, 1892, 1893 and 1894 there were 20,011 cases, of which 6,936 resulted in death, or a percentage of 34.66. The percentage of deaths from these diseases in the other quarter of each year was as follows: 36.59 in 1891; 37.04 in 1892; 37.34 in 1893, and 30.67 in 1894. In the first three quarters of 1895 there were 7,921 cases of diphtheria and croup, of which 1,643 were fatal, making the percentage of death 19.43.

President Wilson says that the reduction in the

President Wilson says that the reduction in the mortality rate in the first three quarters of 1895 as compared with the average death rate for the corresponding periods of the previous four years has been 43.94 per cent. If the death rate from these diseases during the first, second and third quarters of 1891-94 had been the same as in 1895, 3,043 lives would have been saved in

that period.

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"The larger reduction in the mortality rate from diphtheria and croup from the first three quarters of 1895," says President Wilson, "is attributed mainly to the introduction and use of diphtheria antitoxin, and if this remedy had been more generally employed, the reduction would have been greater."—Atlantic Medical Weekly.

Legal Restrictions Regulating the Practice of Medicine in the United States.—In the current number of the Bulletin of the American Academy of Medicine, Dr. Charles McIntire classifies the methods employed by the States to regulate the practice of medicine as follows:

A. States and Territories whose Medical Laws Practically Permit any one to Open an Office to Practice Medicine.

Alaska, Arizona, District of Columbia, Idaho, Indiana, Kansas, Michigan, Nevada, New Hampshire, Ohio, Texas, Wisconsin and Wyoming.

B. States and Territories which Merely Exercise a Supervision of the Diploma held by the Person Desiring to Practice Medicine.

California, Kentucky, Missouri and Nebraska.

C. States and Territories which Require an Examination for Licensure, but Accept the Diplomas of Certain Colleges as Evidence of that Examination.

Arkansas, Colorado, Connecticut, Illinois, Indian Territory, Chocktaw Nation, Iowa, Massachusetts, New Mexico, Oklahoma, Rhode Island, South Dakota, Tennessee and Vermont.

D. States and Territories that Require Passing an Examination before a State Board of Examiners before Issuing a License to Practice Medicine.

I. A Single Board of Examiners.

Alabama, Indian Territory, Chocktaw Nation, Maine, Minnesota. Mississippi, Montana, New Jersey, North Carolina, North Dakota, Oregon, South Carolina, Utah, Virginia, Washington, West Virginia.

II. Two Boards of Examiners, one of them Homeo-

pathic.

Delaware, Florida, Louisiana and Maryland.

III. Three Boards of Examiners. One of them Homeopathic, and another Eclectic.

Georgia, New York and Pennsylvania.

E. States from whom no Reply has been Received to Letters of Inquiry.

Indian Territory-Creek Nation.

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The Mosgrove Bill.—The Physio-Medical Journal, Indianapolis, Ind., Dr. George Hasty, editor, in the October number gives the full text of the Mosgrove bill to regulate the practice of medicine in Ohio. This bill provides for a State board of medical registration and examination to be appointed by the governor, by the advice of the Senate, the seven members to be selected from the various schools of practice in proportion to their numerical strength, but no one school is to have a majority of the whole board. The Physio-Medical Journal objects to the clause which leaves the standing of the medical college to be determined by the board. To oppose the enactment of the Ohio law is the advice of the Physio-Medical Journal, which says editorially:

"From Sanative Medicine we see that the Ohio physios are not all asleep. A regular meeting has been held and the banner raised, and a forward movement decided upon. This is as it should be. If a grand success attends the movement the entire force of the State should be mustard in. No physio-medicalist in the State can afford to be out. Every one should at once be mustard into service. Take care of yourselves."

The Ohio "physios" will no doubt have a "spicy" meeting. But they will need a goodly portion of bread and meat with their "mustard" to defeat the Mosgrove bill. It is a bill for the people and not for any medical school.—

Indiana Medical Journal.

Dr. U. Maurice Carens has moved to this city, office 276 Euclid Avenue, residence, The Granger. He is a member of the class of '88, Medical Department of Western Reserve University.

The Cleveland Medical Gazette begins a new volume with its November issue, 1895. in a new dress. It is enlarged in size and every way improved in appearance with a view to keep pace with the progress of the age.—
Buffalo Medical Journal.

Neatly Turned.—A gentleman invited some friends to dinner, and as the colored servant entered the room he accidentally dropped a platter which held a turkev. "My friend," said the gentleman in a most impressive tone, "never in my life have I witnessed an event so fraught with disaster to the various nations of the globe. In this calamity we see the downfall of Turkey, the upsetting of Greece, the destruction of China, and the humiliation of Africa."—Exchange.

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The Treatment of Diphtheria with the Antitoxin.—In support of the utility of the antitoxin in the treatment of diphtheria, Behring (Deutsche medicinische Wochenschrift, 1895, No. 38, p. 623, Med. News,) has collected from official sources the following statistics, showing that the proportion of cases of diphtheria admitted to the hospitals of Berlin has not increased since the introduction of the antitoxin:

	1891	1892	1893	1894	1895 to July 28
Number of cases of diphtheria treated in the city of Berlin Number of cases of diphtheria treated in Berlin hospitals	3502 1797	3772 2120	4296	5240 2900	3111
treated in Bernii nospitais	1121	2120	2403	2900	1000
Per cent	(49.3)	(56.2)	(55.9)	(55.3)	(53.5)

The increased number of cases is to be attributed to

increase in population.

The following figures show the reduction in the mortality from diphtheria in Berlin, both in and out of hospitals, since the introduction of the antitoxin:

	1891	1892	1893	1894	1895 7 mos.
Number of cases of diphtheria treated in the city of Berlin Number of deaths Per cent. Number of cases of diphtheria treated in Berlin hospitals. Number of deaths Per cent.	3502	3772	4296	5240	3111
	1144	1376	1577	1496	495
	(32.6)	(36.5)	(36.7)	(28.5)	(15.9)
	1727	2120	2403	2900	1666
	613	867	931	611	250
	(35.5)	(40.9)	(38.7)	(21.1)	(15.5)

Extended investigation shows that the mortality from diphtheria in Berlin in the year 1895 was two-thirds less than in the previous seventeen years, during which careful official statistics have been collected.

The following figures show the results obtained in the surgical clinic of Prof. Bose at Giessen in the treatment of 112 cases of diphtheria with the antitoxin:

	All cases.	Trache- otomized.	Not trache- otomized.	
Jan. 1, 1890, to Jan. 1, 1893	93 48 (51.6)	Died. 84 45 (53.5)	Died. 9 3 (33.3)	
Jan. 1, 1893, to Jan. 1, 1894	186 82 (44.0)	148 78 (52.7)	38 4 (10.5)	
Jan. 1, 1894, to Oct. 26, 1894	144 54 (37.5)	91 49 (53.8)	53 5 (9.4)	
Oct. 27, 1894, to July 31, 1895	112 9 (8.03)	52 8 (15.2)	61 1 (1.6)	





THE SURGERY OF THE URETERS AND KIDNEYS.

BY HUNTER ROBB, M. D.

Prof. of Gynæcology, Western Reserve University.

Tauffer of Buda-Pesth, has an article of some seventy pages in the Archiv für Gynæcologie, Vol. XLVI., Part 3, in which he gives an account of our present knowledge upon the subject of the surgery of the ureters and kidneys to which he himself has contributed most important additions. It will be remembered that the author was associated with Hegar in the now classical case of uretero-abdominal fistula in which he succeeded in connecting the ureter with the bladder and thus saved the patient's kidney. At that time Simon's case of resection of the kidney stood alone in the literature. These two cases together with that of Nussbaum, supplied the ground work upon which the immense advances in the subject since that time have been mainly based. But although in the last fifteen years the literature has become quite abundant, the various questions which have necessarily arisen have by no means been settled. says, "Since the appearance of Olshausen's classical work upon "The Diseases of the Ovaries," the surgery of the uterine adnexæ has been put upon a scientific basis, and it is to be hoped that in a short while we shall be able to say the same for the surgery of the ureters and kidneys. He adds, "In the meanwhile, we are still living in the time of detail work,

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and it is just now that the contributions of the experienced workers may be of great service in clearing up obscure points. I therefore consider it opportune to put before you my experiences in order that I may do my share in making this one of the questions of the day in our medical researches."

After giving an account of his work and of the various cases which have come into his hands, he ends by summing up under four heads the conclusions to which his own experience and the consideration of that of others have led him.

- A. The Surgery of the Ureters.
- 1. The existence of an uretero-abdominal fistula is generally considered an absolute indication for nephrectomy. The study both from a clinical and pathological standpoint of injuries to the ureter occurring during operations for large abdominal tumors is as yet by no means complete.
- 2. In cases of accidental injury to the ureter every effort must be made to adopt some measure which will bring the ureter again into connection with the bladder before recourse is had to nephrectomy. The possibility of a plastic operation by which the cut ends of the ureter can be united is demonstrated by my cases.
- 3. Subperitoneal tumors which grow deep down in the pelvis and push before them the neighboring organs, not infrequently displace the ureter *en masse* so that the organ is often found in an abnormal position, and is exposed to the danger of an accidental wound. The danger becomes greater when the tumor has pushed itself up between the bladder and the ureter, and has separated these organs from one another.
- 4. The arteria ureterica, a branch of the renal artery the existence of which has up to the present time been almost ignored, is, in my opinion, of the greatest importance, because in trying to stop a hemorrhage deep down in the pelvis and in the neighborhood of the dislocated but unrecognized ureter we are liable to tie or cut through this organ.
- 5. In severe operations, the ureter is often freed from its connections for a distance of from 10 to 15 cm., and lies free in the pelvis. In these cases, this part of the organ depends for its nourishment entirely upon the arteria ureterica which is intimately connected with the fibrous capsule of the ureteral wall.



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- 6. After difficult laparotomies, especially when stitches or ligatures have been laid deep down in the pelvis, it is of the utmost importance, before the abdominal wound is closed, to make sure that neither of the ureters has been ligated. Such an accident may be diagnosed by finding a cylindrical mass about as thick as the finger, which is formed by the ureter in which the urine is dammed up. In such cases the impediment must at all costs be removed.
- 7. The accidental ligation of the ureter produces a hydro-nephrosis, and later on, on account of the pressure of the sterile urine, to atrophy of the substance of the kidney. It does not necessarily endanger life.
- 8. In the presence of an uretero-vaginal fistula, it is advisable to first make an artificial vesico-vaginal fistula after which a plastic operation for direct closure is indicated. This at any rate must be first attempted before any more serious procedure is decided upon.
- 9. When a third ureter exists, and when this supernumerary ureter empties into the urethra or into the vault of the vagina, we should see whether it does not for some distance in its course run quite close to the bladder. If this is found to be the case, by an epicystotomy, it can be connected directly with the bladder after which the peripheral portion can be destroyed by means of the Paquelin cautery.
 - B. Nephrotomy and Nephrectomy.
- 1. The most recent researches in the surgery of the kidneys point to the necessity of conservative procedures.
- 2. My experience goes to support Favre's theory, that when the function of one ureter is interfered with by compression or ligation, the other kidney can gradually become accustomed to compensatory work, so that later on the extirpation of one kidney can be well borne, or in other words a single kidney can finally do the work of two.
- 3. The cause of death after the extirpation of one kidney before the other kidney has had time to accustom itself to the increased work is almost always an acute parenchymatous nephritis.

Other experiments are necessary before we can allow the truth of Favre's theory, that this acute nephritis is due to a previous special intoxication of the blood with ptomaines.

4. Should Favre's theory be confirmed by future experi-



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mental work, as well as by clinical experience, the extirpation of the kidney at a second operation will be indicated.

- 5. Whenever in the course of a severe operation in the abdominal cavity, the ureter be accidentally cut, extirpation of the kidney on that side is not indicated at the time. If it is impossible to connect the ureter directly with the bladder an artificial uretero-abdominal fistula should be made and nephrectomy should be performed later.
- 6. Even with a utero-abdominal fistula, under ideal circumstances, it might be possible for the corresponding kidney to remain absolutely sound. Experience, however, shows that owing to an ascending infection, a pyelitis or even a nephritis usually follows. Consequently in the case of an uretero-abdominal fistula, nephrectomy is indicated.
- 7. It has been noticed that through a portion of the ureter 10 cm. long, fastened to the abdominal wound, the urine is evacuated in peristaltic rhythm. This would justify the conclusion that under normal circumstances the rhythmical flow of the urine takes place, and as a consequence of rhythmetical contractions occurring not in the ureter, but in the pelvis of the kidney.
 - C. Tumors of the kidney.
- 1. In the differential diagnosis between renal tumors, especially hydro- and pyonephrosis and ovarian tumors, errors are not uncommon. Definite clinical signs which might aid us are often absent.
- 2. A hydronephrotic sack can often empty itself entirely without any apparent cause, (intermittent, temporary hydronephrosis.)
- 3. A peritonitis following upon a puncture of a renal tumor owing to which fluid has escaped into the abdominal cavity and the consequent adhesions may render a differential diagnosis impossible.
- 4. A hydronephrotic sack can easily be freed from the connective tissue which holds it, provided that there has been no inflammatory complication, or that the inflammation has been confined to the peritoneum. If, however, the inflammatory process has been perirenal, the enucleation of the sack will sometimes present insuperable difficulties.
 - 5. The contents of a hydronephrotic sac may become



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purulent in consequence of an ascending catarrhal infection of the bladder. In these cases, if the ureter closes, the catarrh of the bladder may get well, and thus no proof may remain that the infection came originally from the bladder.

- 6. In the walls of a hydronephrotic sack of moderate size, renal tissue still capable of functioning can often be found, the preservation of which is often of the greatest importance to the patient.
- 7. In doubtful cases, an exploratory laparotomy is indicated. Such an operation does not necessarily exclude the possibility of nephrectomy through a lumbar incision, if such be indicated.
- 8. When the renal tumor is combined with a retroperitoneal abscess, the operation through the peritoneum may be dangerous since the abscess cavity lies close to the abdominal cavity. It will not always be possible to recognize this complication early enough even after a preliminary laparotomy, so that whenever such a condition is suspected, the lumbar incision should be preferred.
 - 9. In dealing with hydro- or pyonephrotic tumors, the utmost conservatism is to be recommended. The spontaneous cure of such a sack, even after the elapse of months, (in our case after 27 months,) may be expected and the patient be left with a useful kidney.
 - 10. Tumors of the kidney developing with pregnancy, have at present been but little studied. The hydro- and pyonephrosis caused by compression of the ureter can eventually give rise to a parenchymatous nephritis. Under these circumstances the induction of premature labor is indicated.
 - 11. In the diagnosis of renal tumors, the cystoscope plays an important rôle, more especially with reference to the side on which the sound or diseased kidney is situated.
 - D. Nephrolithiasis, Renal tuberculosis, Malignant tumors of the kidney and Nephrorraphy.
 - 1. Calculus in the pelvis of the kidney may exist with symptoms of an ordinary pyonephrosis. It may have existed for many years without giving rise to any characteristic symptoms.
 - 2. In cases of renal calculus nephrolithomy is indicated.
 - 3. In any case in which a laparotomy is performed for an abdominal tumor, it is advisable to palpate both kidneys

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directly, and more especially when there has been any history pointing to the existence of a renal calculus, even although the symptoms may have occurred many years before.

- 4. In connection with the question of nephrolithotomy, it must be remembered that the formation of a calculus in the kidney is not infrequently bilateral, and that a successful operation may not therefore cure the patient.
- 5. The diagnosis of unilateral primary tuberculosis of the kidneys is very difficult since both the clinical and the bacteriological examinations are often unreliable.
- 6. The justifiability of operation in cases of unilateral primary tuberculosis of the kidney is to-day undeniable.
- 7. In cases of unilateral tuberculosis of the kidney, nephrectomy is indicated.
- 8. It may sometimes happen that in the attempt to perform a nephrotomy we may encounter an uncontrollable hemorrhage coming from the kidney tissue. In these cases, we must perforce proceed to a nephrectomy.
- 9. The high degree of mortality (75%) which has been observed after operation for malignant tumors of the kidney is attributable to two causes, (1) to the technical difficulties encountered during the operation, (2) to metastatic infection. Better results can be looked for from (a) an early diagnosis and (b) from greater perfection in our operative technique.
- 10. With respect to the frequency of the occurrence of floating kidney, the views of the authorities are at variance. In deciding how far the symptoms complained of by the patient are attributable to this condition, much depends on the opinion of the particular physician. Hence the frequency with which some proceed to operation. (Nephrorraphy.)
- 11. In cases of floating kidney, fixation is the result which should be aimed at, the exact position, *i. e.*, whether the kidney should be fastened a little higher up or a little lower down, seems to be of but slight importance.
- 12. For laying bare the kidney, the lumbar operation according to Czerny's method, seems to be the best. This is especially appropriate for the fixation of the kidney since the upper surface of the organ, when partially separated from its capsule, can be sutured directly to the lumbar fascia which has been freed from its fat.



A CASE OF PRIMARY EPITHELIOMA OF THE UPPER LIP; ALSO A CASE OF SCIR-RHUS CARCINOMA OCCURRING IN THE MALE BREAST.

BY C. B. PARKER, M. D., CLEVELAND, O.

Primary carcinoma of the upper lip and the male breast is sufficiently rare to make the report of such cases interesting. In my own practice, I have had two cases of carcinoma of the male breast; while the case here reported is the very first I have ever seen of primary epithelioma of the upper lip. The causes of carcinomata beyond the general statement of injury or irritation are not generally evident. In this case we have the positive knowledge of the wound and its subsequent transformation into epithelial carcinoma.

Charles B., a farmer, 47 years of age, living in Warrensville, O., has the following family history: His father died at 47 of "some chronic lung affection," probably tuberculosis; his mother died at 70, of pneumonia. Two sisters died in infancy, and another sister died in childbirth. An only brother is living and well. There is no history of carcinoma among other blood relatives. Previous history: He has led an active, laborious life as a farmer. He is an inveterate smoker, of both the pipe and cigars, and in early manhood also chewed tobacco excessively, but has not done so for about twenty years.

On the second day of August, 1895, while caring for his horses, he cut the under surface of his upper lip upon a broken and sharp tooth. He paid no attention to the injury as the bleeding was inconsiderable, and wounds usually healed promptly upon him. Healing, however, did not follow promptly. The lip remained slightly swollen and tender, and the wound grew gradually larger and there was a noticeable offensive discharge.

In October the wound, continuing to increase in size, had taken on the appearances of a distinct ulcer and was spreading rapidly and invading the surrounding tissues. The patient ascribed this sudden, rapid growth to "taking cold." Coincident with this rapid growth, the lymphatic gland at the angle of the jaw upon the left became enlarged. At no time had there been much pain, either in the lip or in



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the enlarged glands. The patient consulted his local physician, Dr. LaDow, who made the diagnosis of epithelioma, and brought the patient to me for operation.

The patient looks his age; is robust, weighs 200 pounds, and has no cachexia.

Upon the upper lip, extending from beyond the middle line on right to the angle of mouth on left is a characteristic ulcerated surface, with a ragged, irregular, sloughing base, and raised, everted and hardened edges. Upon raising the lip, the ulcer is seen to occupy its entire inner surface up to the attachments of the mucous membrane to the upper jaw, and to be far more extensive than appeared from the external examination. The lymphatics at the angle of the jaw upon the left side were quite large and tender.

Operation.—First, removed the lymphatic glands at the angle of the jaw by a flap incision with convexity downward to secure good drainage. Parallel incisions were made through upper lip, one at left angle and one beyond median line to right. An incision was made parallel to the border of the lip and just beneath the septum of the nose, and a quadralateral piece containing the entire growth with a good margin of healthy tissue was removed. An incision was next carried an inch along the alla of the nose on either side, and the flaps thus formed loosened from the jaw bone well out upon the cheek. By this means, the edges of the two first incisions could be brought together without tension. Catgut and silk-worm sutures were used, and iodoform in collodion applied as a dressing.

Operation performed November 6. Patient discharged November 14. Primary union of the lip.

A careful microscopic examination of the specimens from these cases was made by my colleague, Prof. A. P. Ohlmacher.

In the case of epithelioma, sections were made from the lip and also from both the glands from the neck. The section of the lip showed the usual microscopic appearances of epithelioma. The "birds nests" of epidermal cells deep down in the layers of the true skin. Numerous mastzellen, phagocytes and beautiful cellular inclusions were visible. In many of the cells, karyokinetic figures were noted,

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and in some, these figures were distinctly irregular. But the microscopic examination of the larger of the glands was even more instructive. Here, in the midst of the small, round lymphatic cells of the gland tissue, were most beautiful "birds nests" of great squamous epithelial cells. Numerous pus producing cocci were also found in the walls of the ulcerating gland. It is evident that the epithelial cells had been carried through the lymphatic channels from the lip to the lymphatic gland. The ulcer on the lip becoming infected with pus-producing organisms, these also were carried through the lymphatics into the gland and the process of suppuration begun. The gland ulcerating just as the growth on the lip had already done. In the smaller gland, neither epithelial cells nor micrococci were found. This gland was already enlarged by the irritation going on in its neighbor. Nor can we say how long it would have escaped infection, but thus far, it seems that the first lymphatic had been sufficient to arrest the cellular and bacterial elements within the limits of its own structure.

Two weeks after operation, patient presented himself complaining of slight pain on pressure at angle of jaw in the right side. On examination readily made out an enlarged and tender gland. This gland must have become enlarged after he left the hospital, as repeated careful search had failed to reveal any enlargement upon the right side. The gland was immediately removed and subjected to microscopic examination, showed not only the "birds nests" of typical epithelioma, but also pus and pus producing organisms.

Mr. H., American, age 51, manufacturer. He has lived in various parts of the country. In Cleveland some years.

One year ago, a hard mass appeared in left breast just above and internal to the nipple. The lump appeared without known cause. He can recall no injury or irritation however slight. His family history, so far as he knows, is good, and no member of his own family suffered from carcinoma. The mass increased in size, but without pain. Four months after he first discovered it, a scab formed over most prominent portion of tumor which frequently fell off,



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leaving a bleeding surface. The amount of hemorrhage has of late been considerable. He is pale, but not cachectic.

The operation was performed at the Cleveland General Hospital. A circular or "dinner-plate" incision was made to surround the tumor and to include a liberal quantity of the surrounding integument. The entire breast and pectoral muscle and fascia beneath the tumor down to the ribs was removed. An incision along inferior border pectoralis major exposed the axilla and its contents removed. Deep coaptation, button sutures of silver wire were inserted to bring edges of the wound together, and marginal sutures of fine cat-gut were applied at edges of the incision. The recovery was uneventful, except that there was a persistent oozing from one of the deep sutures, which, though not large in quantity, was quite persistent and made the patient very nervous. He left the hospital in the second week. The wound nearly healed.

The sections made from different parts of the breast showed in each case the microscopic characteristics of scirrhus or chronic carcinoma. The alveolar spaces rather small, but filled with large multinuclear spheroidal carcinoma cells, and the stroma very thick and dense.

In the small celled infiltration areas in the growing edge of the tumor, numerous phagocytes, single, in twos or threes, and in large groups, were noted; and the process of phagocytosis, or warfare between physiological and pathological cells, beautifully demonstrated.

Sections from the enlarged axillary lymphatics proved on microscopic examination to be simple hypertrophy and in no section was any evidence of carcinoma found.

MEDICAL ABUSES.

BY L. B. TUCKERMAN, M. D.

Your committee on program has assigned to me the broad topic of Medical Abuses to discuss in a twenty-minute paper. The disproportion between the amplitude of the topic and the brevity of the time will be patent to all, for the



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abuses are many and the results grievous. But the committee doubtless reasoned that as it was a somewhat ticklish subject, "the less said, the sooner mended," and if they assigned all the abuses to one paper, there would be hardly more than time to

"Go tollable strong
Agin' wrong in the abstract, fer thet kind o' wrong
Is ollers unpop'lar an' never gits pitied
Because it's a crime no one never committed.
But he mus'n't be hard on partick'ler sins
Coz then he'll be kickin' the peoples' own shins."

Or, possibly, they intended to delicately convey the insinuation that the writer might be able to condense more abuse into a twenty minute paper than some other one might. Be that as it may, this paper will confine itself to the brief consideration of two evils only: the abuse of the Free Dispensary, and Corporation Surgery.

I wish it distinctly understood in the outset of this discussion that whatever may be said has no personal or invidious application to any member of this Society or of the medical profession. Such abuses as exist are not created by any man or set of men—they exist because the profession as a whole tolerates them. Nor does it follow because any given member of the profession happens for the time being to profit by one or more of these abuses, that he is worse than the rest of us, any more than it is to be counted to our credit that the opportunity did not come our way. But in the long run, any practice which tends to detract from the dignity of the profession in the eyes of the public, or to materially lessen the exponent of that dignity-its emoluments, must inevitably react to the hurt of the very ones who, for the time being, seem to be advantaged thereby. So that in seeking to reduce these evils to a minimum, we are acting in the true interest of every member of the profession.

There is no need of wasting many words on the Free Dispensary abuse. We know all about it, every one of us, and we know the why of it as well—the ubiquitous professor; his clinicomania; his advertisement (ethically displayed on the wall of the medical college or hospital only) "Free treatment to the worthy poor." He asks no questions and





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the "worthy poor" flock to him, "some in rags and some in tags and some in velvet gowns," and among them not a few who own their own homes, have respectable bank accounts, and even are able to drive to the nearest corner in their own conveyance. It goes without saying that it is an outrage on the profession for those who aspire to stand high in our ranks to give free treatment to those who are able and who ought to pay. It teaches the latter to set a low value on medical services and deprives the profession of some legitimate emolument. Worse than all, it robs the struggling young practitioner of his natural clientele. We know only too well how hard it is—how all but impossible it is for a young man, however able or deserving, to build up a living practice in a medical college town unless he have capital or a pull to back him. The remedy, however, is a simple one, if the great body of the profession will only apply it faithfully and persistently. All that is necessary is to carry out the memorable injunction of Grover Cleveland and "tell the truth." Let us, one and all, give the public to understand that free dispensaries are only for those who can pay nothing at all and for that reason can do no better; that those who can pay anything cannot afford to go to a free dispensary, for, as we are well aware, free treatment is irresponsible treatment and often careless treatment; that a full clinic means little time and less consideration to each individual patient; that the practitioner is chiefly interested in the patient's getting well, while the chief concern of the clinical assistant is to find interesting material for the clinical professor to lecture on; that clinical cases more often remain chronics than get well; etc., etc. This line of treatment carried out thoroughly by the body of the profession and faithfully persisted in, will go far to mitigate the abuse. It applies the corrective directly to the source of the evil, viz: the people who are tempted to abuse the free dispensary under the false impression that they are getting better treatment for nothing than they would get by paying a physician at his office. And in this connection it is just to remind the Society of the exemplary conduct of our President who sued one of these frauds for his bill on the ground, that being able to pay, he was not entitled to free treatment even at a free



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dispensary. I don't know whether the Doctor got the money, but I do feel that the profession is to be congratulated on the fact that he got the judgment. Let us hope that his commendable example may prove contagious among clinical teachers, and that others also, mindful of the Scriptural injunction that "He that giveth to the rich shall come to poverty," will charge those who are able to pay, for clinical as well as other services—the more roundly, the better!

The rapid development of our industries, the multiplied applications of machinery, the syndication of our railway systems and of our great mining and manufacturing plants, have already exercised their influence on the learned professions and evolved the corporation lawyer and the corporation doctor. To the credit of the corporation lawyer be it said that he knows what he is worth and gets it-he is usually paid more for less work than other members of the legal profession. Would that we could say the same of the corporation doctor, but, alas, he as a rule gets less pay for more work than any other member of the medical profession. This, to say the least, hardly puts the medical profession in a complimentary light. As time goes on, the line of demarkation becomes plainer and plainer between the physician and surgeon and the corporation surgeon. The latter has been the first to recognize that "his ways are not our ways nor are his gods our gods," as the formation of the various Associations of Railway Surgeons fully attests. He has his own code of ethics, too-the rules of the corporation that employs him. It is substantially as follows:

- 1. In all cases of injury to passengers or employees, requiring surgical aid, the nearest regularly appointed surgeon of the company must be called without delay, and the case put in *his exclusive charge*.
- 2. In case of sudden emergency, where a passenger or employe has been so injured as to require immediate medical or surgical assistance, and the attendance of the company's surgeon cannot be had at once, then proper surgical aid should be procured to attend until his arrival. But there must be no delay in sending for the company's surgeon, notwithstanding the called surgeon is in attendance.
 - 3. The company's surgeon upon being summoned



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must immediately attend, and upon his arrival he shall at once take exclusive charge of the case, and entirely relieve the called surgeon from further care or attendance so far as the company is concerned.

- 4. The company's surgeon shall upon relieving the called surgeon, obtain from him, if possible, a statement in writing (on the company's blanks or otherwise) showing the condition of the patient from the time he was called; the result of his examination, and the treatment given; and for his services, and making the said report, the called surgeon shall be paid a reasonable compensation.
- 5. Upon the arrival of the company's surgeon, and his taking charge of the patient, the called surgeon, if one has been called, shall be distinctly notified by the company's surgeon and by the agent in charge, that the company will no longer be responsible for his attendance or services, and that they are no longer required.
- 6. Except in cases of injury to passengers and employes where delay might be attended with serious results, the company will not be responsible for the employment or services of other surgeons than those herein named, and no obligation of any kind must be assumed for the company beyond the services required while awaiting the arrival of the company's regular surgeon, and the fees of the called surgeon for making his written report.

These instructions (italics are mine) were given by the Big Four to its surgeons in 1890.¹ They are a fair sample. They tap the milk in the cocoanut. They show clearly that it is not primarily for the purpose of providing for the care of the injured that a corporation employs a surgeon. It is because damage suits are liable to arise and because the family physician's interests and sympathies are likely to be with the patient instead of the corporation, and because it gives the latter the advantage in a suit at law to have all the medical evidence in the hands of its own employes—men whom it can punish in case their testimony before a court of justice is not satisfactory. But this is not all. Under the guise of a so-called insurance which is compulsory, by the way, many corporations are already making their employes

^{1.} Cleveland Leader, Feb. 20, 1890.





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pay for the powder to blow themselves out of court with. Recently Dr. Geo. Chaffee read a paper before the International Medico-legal Congress urging the extension of the Railway Hospital system to the East.² In summing up the reasons therefor he very naively let the cat out of the bag as follows:

- "1. It does not cost the corporation one cent; the system is established and maintained by light monthly assessments upon the employes—from President down.
- "2. It favors compromise and prevents much litigation, a saving of thousands of dollars annually.
- "3. Not only the employes but injured passengers as well, are cared for in the railway hospital without cost to the corporation, and are thus kept in the family circle instead of being placed, as is the case in many instances—directly in the hands of the enemy at their homes."

In this case also the italics are mine, and by the "enemy" I presume he means the family physician, and he might have added another point in favor of such hospitals-a source of considerable saving, as I learn from Dr. Bayard Holmes of Chicago, who has made a somewhat extensive study of this subject. A crippled man has a better standing before a jury than the heirs of a dead one, and, as an appreciably larger percentage die when transported to a distant hospital than when treated along the line where they are injured, the saving to the corporation is considerable. It was for a similar reason doubtless, viz: that a clean stump is apt to let a corporation out easier than a deformed, though fairly useful member, that an assembly of railway officials a few years ago passed a resolution instructing their surgeons to amputate whenever they could find a reasonable excuse for so doing.

It is a novel view of the traditional relation between physician and patient which permits a medical man-to act in the double capacity of attending surgeon to the patient and medico-legal adviser of the patient's adversary at law. From the time of Esculapius down to the time when corporations began to promulgate rules governing the conduct of contract surgeons, it has been insisted upon that the

^{2.} Medical Record, Sept. 14, 1895.





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information acquired by the medical or surgical attendant during or by reason of his attendance, was the property of the patient; that the latter's communications were inviolable -as sacred as the confessional. A lawyer who should so use the confidential relation obtaining between legal adviser and client, and should so aid the client's adversary at law with the information thus obtained, as the rules regulating corporation surgeons require, would be disbarred. So far as the system tends to affect the status of the medical victim, the corporation surgeon himself, it cannot be better expressed than in the words of the editor of the Medical Record in comment on the paper of Dr. Chaffee.3 "It means," he says, "that a large number of medical men will become employees and practically clerks of the great corporations. It means that such a class of men will lose, to a large extent, independence of spirit, and that the kind of work they do will be classed more and more, not as professional service, but as a species of skilled workmanship like that of a high class mechanic." Many of these surgical employes are possessed of a high degree of technical skill, and but few of them, thanks to the inhibitory influence of professional training and traditions, have yet come fully down to the level of their occupation, but the essential duplicity of the relation when the same person must act as attending surgeon to the patient and at the same time as confidential adviser to his adversary at law, is a steady pull downward, and in the long run, gravitation wins. It is related of the late Charles Latimer, whom many of you no doubt remember, that once on a time, when his testimony in court was not wholly satisfactory to the attorney of the company, the attorney took him to task therefor. "You are laboring under a mistake, sir," he said; "I am not the man who is hired to lie for the Nypano." The time comes, however, sooner or later, when any corporation employe who has scruples against bearing his fair share of the necessary prevarications, must go-some other man can always be found of equal ability and less scruples.

It must be evident to us all that Corporation Contract Surgery is an evil compared with which the Dispensary evil





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is a mere trifle. Perhaps, like the Social evil, it is one of those offenses that must needs come, yet its extension is fraught with such serious consequences to the whole profession that we should lose no opportunity and relax no effort to check it. Nevertheless while handling the abuse without gloves, we should strive to deal tenderly with those of our number who have become entangled in its meshes. But we should be in no wise mealy-mouthed as to the real reason why corporations employ surgeons by contract instead of permitting the injured to employ their usual medical attendant, or to send for the nearest physician till the family physician can be summoned. We should emphasize, too, the fact that in allowing the corporation surgeon to take charge of his case, the injured man is jeopardizing his own rights at law, and giving the corporation every advantage in a suit at law, and that this advantage which the corporation has thus obtained, may force him or his heirs into accepting a settlement wholly disadvantageous. We should explain the duplicity of the relation obtaining between the corporation surgeon and his patient—how it differs from the ordinary relation between medical attendant and patient; how he is at the same time the surgical attendant of the injured man, and the medicolegal detective for his adversary at law. Such an attitude publicly and boldly taken by the body of the profession will tend to limit the evil not a little, and it is a stand which we ought to take in justice to ourselves and to the public. And among ourselves we ought frankly to acknowledge that none of those canons of ethics and professional courtesy which obtain regarding the patient of another physician, have any force respecting a patient in charge of a corporation. To such cases, no ethics apply. The patient is in duress of the corporation, or as Dr. Chaffee smoothly expresses it: "Kept in the family circle," not for his own benefit, but to save the corporation expense, and to render it harder for him to obtain his rights in court. Considered as a physician, the corporation doctor has no professional rights or interest whatever in the case—he is simply on the ground on guard, to keep the injured out of "the hands of the enemy at their homes." Of course, a corporation is entitled to a medico-legal adviser to look out for its interests, if it





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wishes, but the relation should be open and above board so that the sufferer shall not be made the victim of a confidence game. When a case arises where a corporation needs the advice of a medico-legal expert, let it hire him as an expert and pay him a fee commensurate with the value of his services as measured by the importance of the case and the dignity of the medical profession. It is not to be expected that an evil so wide spread, and with such gigantic pecuniary interests to back it, will down at once. But there is no disinfectant like the oxygen of free and open discussion. Publicity is an efficient corrective, though hardly a radical cure. Knowledge of what it means to become a corporation surgeon; that the favor of a corporation, while it may give a surgeon a temporary boom in the way of clinical material and opportunity for the practice of technique, is an unstable foundation for a solid reputation; that by virtue of his office he is likely to be asked to do work which would make a police court pettifogger blush for shame; that if his gorge rise and he refuse, the grace of the corporation will be withdrawn and his boom will collapse; such knowledge, generally diffused among the profession, will go far to make those who have reputations to build up, or self-respect to lose, hesitate a good long while before putting themselves in such a position. But so long as there are great corporations organized for profit, which can save, or think they can save money by hiring surgeons by contract, and so long as the excessive number of men who graduate into the medical profession renders it certain that a considerable percentage will be crowded down and out-some down, some out, we must expect that there will be those whose necessities will compel them to enter corporation employ. If ever the people of the United States shall decide to follow the example of Australia, New Zealand, Germany, Austro-Hungary, etc., and make the railway service a public service, the evil of railway contract surgery will cease, for the railway medical service, if one be needed, will then be reorganized on the same high plane of honor and efficiency with which we have been made so familiar in the organization and working of the Marine Hospital Service, and the Medical Service of the Army and Navy.



DILATATION OF THE PARTURIENT CERVIX.*

(With exhibition of new instrument.)

BY WILLIAM C. BUNCE, M. D., OBERLIN, O.

The poet praises the harmonies of nature, which work together for the good of man. But the average physician is apt to doubt its truths after having been at the bedside of his patient hour after hour, waiting for the contractions of the longitudinal fibers of the body to overcome the contraction of the circular fibers of the cervix of the uterus.

Nature here appears to be rather working against herself, especially so, if there is an abnormal condition of the parts, and it behooves the medical attendant to use such means as are in his power to overcome the difficulty and shorten the hours of suffering. Since medicine has become a science and from its earliest history, the rigid Os has been one of the banes of the obstetrician's life.

Under otherwise normal conditions aside from prolonged suffering it may not endanger life, but in those numerous complications of this state, it is sometimes of the utmost importance that decided and efficient means be at hand for immediately overcoming it. The character of these constrictions differ under different conditions, and various are the theories advanced as to their cause. We may have that constricted orifice whose edges are thin and hard, the tissues being tense and fairly wiry to the touch, in others the parts may be thickened, apparently hypertrophied, congested or ædematous; or we may have a cicatrix, the result of previous lacerations or operative procedures, and I have seen those cases in which they appeared almost cartilageous. causes of other than cicatricial stenosis are not fully known. An almost tetanic contraction may be due to the perverted nerve energy, an irritation, or over sensitive condition of the terminal nerve fibers terminating in the sphincter-like circular fibers of the cervix, attended with great pain upon each contraction; or the unyielding Os may be due to a weakness of the uterine ligaments. Contraction of the abdominal muscles cause the whole uterus to be pressed downward into the pelvic cavity, the descent becoming limited by these ligaments and the surrounding parts, and





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having an outer attachment would tend to separate the outer walls. The bag of water or presenting part, acting more or less as a plug, would cause continuous as well as intermittent pressure, hence the weakening of these ligaments might indirectly prove a cause. A lack of that active hyperæmia which is present in these parts during pregnancy is given as one cause, in this portion of the uterus during labor, there being an absence of the serous infiltration, softening does not as readily take place.

Under all conditions, whatever the cause, it retards labor during the first stage, weakens the patient and adds to the suffering. In induction of premature labor or when labor should be quickly terminated, owing to the condition of the mother, as in Puerperal Eclampsia, it is necessary to overcome this condition as soon as possible, and it has been my experience that in Puerperal Eclampsia, it is more frequent than in other labors.

Various, methods under different conditions have been advocated and used, all taking time in their action, and being uncertain, often ineffectual in their effects. Internal remedies, ointments, vaginal douches, hyperdermic injections through the vagina, and one of the latest, a spray, the solution of which will be furnished, but the formula not given until the profession shall have become accustomed to its use. During the last seventeen years, having been called to a number of cases of Puerperal Eclampsia, both in practice and in consultation, where it was necessary to deliver the mother, I have met with these cases of rigid and unyielding Os, and having tried all means without avail, I have slowly, after hours, sometimes dilated with the fingers sufficient to apply the forceps, and have felt the need of something more reliable, something that would bring this condition more under the control of the physician, and at the same time be effectual and incapable of doing injury or causing laceration.

To accomplish this, I have had this little instrument made which I now take pleasure in presenting to you. As you see, it is composed of two blades, retained in place by a lock with a graduated thread, and three springs for controlling its power or giving it any strength you may desire,





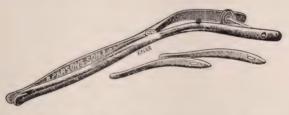
Bunce: Dilatation of the Parturient Cervix.

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the springs being removable. The required spring is introduced; the handles are gradually extended by means of the



movable nut and thread, and the dilating surfaces reduced to the size of the little finger; the points of the blades are beveled and slightly turned outward, and can be introduced



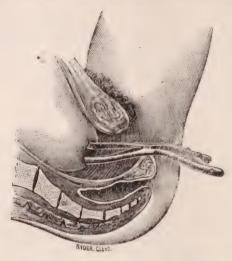
into any cervix that you can introduce the point of your index finger, the hand gradually releasing the nut, allows of pressure by the blades, and dilation commences, the pressure being elastic, can be overcome by the muscular contractions, but being continuous, must in time tire out intermittent muscular action, and you would be surprised at the small amount of continuous pressure necessary to tire out the muscles. By means of the screw you can graduate it to any extent of dilatation you may wish, and you can note the strength and number of contractions by the movement of the handles. Having had occasion to use it in a number of obstinate cases, I have yet to see the case that would not yield so as to afford dilatation sufficient for the application of the forceps in twenty minutes. It is a well known fact that continuous pressure will soon tire out intermittent muscular contraction, the elasticity of the instrument allows of the contraction and does not stretch to laceration.

A plegit of cotton with a solution of cocaine applied a few moments before applying the instrument will relieve any undue pain caused by its application, and is in itself an aid



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to dilatation. There are numerous conditions that will present themselves to you where such an instrument would be



of service, such as retained secundies, inversion of the uterus, and some forms of growth requiring full dilatation for the removal.

SOME PRECAUTIONS NECESSARY IN MAKING THE MICROSCOPICAL DIAGNOSIS OF CARCINOMA OF THE CERVIX.

BY WALTER R. LINCOLN, A. B., M. D., CLEVELAND, O. Assistant in Gynæcology, Western Reserve University.

Dr. Hunter Robb, in the American Gynæcological and Obstetrical Journal for September, 1895, has called attention to the necessity, in all cases where a suspicion of malignancy may be entertained, of studying microscopically sections of small portions excised from the cervix and even from the body of the uterus. While not underrating the value of positive results obtained in this way, I wish to call the attention of the profession anew to the no slight danger which exists of giving a false interpretation to the microscopical image when examining sections taken from the cervix uteri. I am not unaware that the danger has already been recognized and demonstrated by others as a very real



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one, and I hasten to disclaim any discovery of it on my part as at all original. I refer especially to the danger of mistaking a case of healing erosion for that of squamous carcinoma of the cervix.

When working in any microscopical field, unless proper care is given in studying the image presented, and in correctly interpreting it, one may make mistakes, and serious mistakes: but the consequences in most cases are not so fraught with untoward results as when working upon the cervix. The contrast in significance to the patient and in the prognosis between erosion and carcinoma need not be dwelt upon, it being so well understood how great is the fatality of carcinoma and how trifling the significance of an erosion. In view of this fact, we should certainly not spare ourselves in any way in attempting to arrive at a correct conclusion. When we are sure of our diagnosis we may, in the one case, assure our patient of absolute or almost absolute harmlessness; in the other, we must inform her relatives of the presence of a malignant condition that will rapidly kill unless heroic measures are promptly adopted, and at the same time emphasize the impossibility of determining whether the growth will not recur after even the most radical removal.

The danger I speak of lies in hurriedly estimating as carcinomatous all collections of epithelial or epithelioid cells huddled together and completely surrounded by connective tissue or muscular fibre. Such an arrangement is always found in squamous carcinoma, but may also exist in cervical erosion, where carcinoma is certainly not present.

It need scarcely be said that the term erosion, for which, I believe, we have to thank our German brethren, is a bad one as far as the pathological condition which it is intended to represent is concerned. The term began to be used at a time when the pathological anatomy of the condition was misunderstood and was adopted on account of the naked-eye clinical appearance. But custom has sanctioned its use, and for lack of a much better one (Hart & Barbour recommend "catarrhal patches") we may keep to our present nomenclature, understanding that the term fits the case only in one respect, i. e., clinically. Ordinarily, we





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understand by an erosion an abrasion, a rubbing, eating away, or destruction of tissue, more or less superficial. Now, as a matter of fact, no abrasion takes place in cervical erosion. There we have a reversion from the many-layered squamous epithelium, clothing the vaginal surface of the cervix, to the one-layer of columnar cells. The red, angry, raw appearance is due to the bright red blood of the capillaries being seen shining through this single semi-transparent layer of epithelium. Normally, in adults, the squamous layer should extend up to the external os and there abruptly end. In case of the so-called erosion, this squamous epithelium is replaced by columnar cells arranged in a single layer. Beside this change, there are found numerous gland crypts either of the simple or compound tubular type, following the type of the normal cervical glands.

An erosion heals, by the gradual encroachment of the many-layered squamous epithelium upon the site of the columnar covering. Indeed, in some cases, which Dr. Gebhard of Berlin says are quite common, at the exact point of meeting of these two different epithelial coverings, we can see where the squamous epithelium appears to be bodily lifting up the columnar from its former fibromuscular seat. This process extends even into the depths of the adventitious glands, filling them up and rendering them solid cylinders of squamous epithelium. These I have repeatedly found in examinations. In looking at a crosssection of one of these cylinders or papillæ, it would appear to consist of a lot of squamous cells huddled together and surrounded by the fibro-muscular tissue. Such a microscopical picture would certainly resemble more or less closely that found in carcinoma.

Again, sometimes the squamous epithelium at the mouth of the gland duct disappears and the gland lumen at this point closes, leaving a mass of squamous cells entirely surrounded by fibro-muscular tissue. A section in almost any direction will then afford a very deceptive microscopical picture, especially if the gland lumen had previously been entirely filled up by squamous cells. This process of encroachment occurs usually only at the margin of the erosion; at least I have not seen it elsewhere.





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In my experience the points of difference in the microscopical images presented by erosion and squamous carcinoma are as follows:

Erosion. (1) The squamous epithelial cell masses are usually few in number and are located at or near the edges of the erosion, and are found only in the immediate neighborhood of the free edge of the mucous membrane. (2) They are usually more or less round in outline. (3) The cells are usually found closely adherent to their base of support on the fibro-muscular tissue. (4) Sometimes we find columnar cells around one border of the heap of squamous cells. (5) The squamous cell in question has a relatively small nucleus and large cell body.

Carcinoma. (1) The cell masses are numerous and extend for much greater distances into the connective tissue than in erosion. The connective tissue and lymphatic spaces for quite a distance from the mucous membrane are seen to be infiltrated with these epithelial cell masses. (2) They are generally irregular in outline, frequently sending out very delicate finger-like processes between the connective tissues. (3) The cells are frequently found somewhat detached from the surrounding fibro-muscular tissue. (This is produced in the necessary handling of the preparation.) (4) Nothing but squamous cells are seen. (5) The nucleus of the squamous cell is quite large, sometimes filling up almost all the visible cell body.

Pathological Laboratory, Medical College of Western Reserve University.

CLEVELAND MEDICAL SOCIETY*

MEETING Nov. 22, 1895.

PROGRAM.

Dr. Tuckerman read a paper on "Medical Abuses." See page 188.

DISCUSSION.

DR. BAKER: There is just one thought with regard to Dispensary Abuses that has always impressed itself upon my mind in all my dispensary work, and that is that the people who come there are almost always sent there by doctors.

*Reported by Mr. J. S. Cadwalader, Stenographer.

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The people who come to the dispensary to be treated free are people who are often paying the family physician regular fees, and sometimes are able to pay the specialist his fees also; and the suggestion of the essayist that this is wholly in the hands of the profession is the proper view of the question.

DR. CORLETT: I had an idea, but Dr. Baker has expressed it better than I can possibly do. Of course, those who have clinical material are frequently placed in the position that Dr. Baker suggests. Physicians send cases to the clinic for diagnosis. The man who has charge of the clinic has no means of knowing except that the person is uncleanly or is ill-dressed as to his ability to pay. It has always been our object to treat only the worthy poor, and if physicians would help us in sending or recommending only people who are unable to pay for service I think much would be done to remove what is really a great evil.

DR. FOSHAY: I saw some new ideas advanced in the Pittsburg Medical Review lately. * * These same patients probably, but I am not certain, are the same class of patients who come to the medical practitioner and refuse to pay. That struck me as being a rather novel idea. I can not help but think from what I have seen myself in the dispensary that there is a great deal of truth in it.

DR. BUTLER: It seems to me we have another dispensary abuse. That is our district physicians who are paid for looking after the poor, those who are unable to pay a physician. I think there is fully one-half of those who attend these dispensaries who are able to pay their bills. There are many young physicians who are only too glad to have the opportunity of practicing on these cases.

DR. BRAINARD: It seems to me Dr. Butler has touched the center of the matter. The district physicians are of a class of young men of ability. Are they not amply provided for, and would not the matter be struck at right in the middle by simply wiping out in its broadest sense the free dispensary?

DR. SHERMAN: I have had some experience in free dispensaries, not only of my own, but associated with very large public institutions. I believe it is causing a spirit of public robbery by giving to those who, by reason of their circumstances, are not absolutely worthy. The man who will apply to the public dispensary for free medical aid will apply to Bethel for maintenance, and he will become an





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ordinary rover. He will become an excrescence on the community.

Now there is another point in connection with this. I do not speak of it because I have not the distinction of being a professor. There are certain conditions which are necessary for the education of men. * * * * The interesting case never gets well! Never gets well! If a case is not thoroughly understood it is usually reviewed a few days later in the pathological laboratory. Every medical institution must have a dispensary; every medical college the world over, and especially in this country where they exist not according to the necessities but according to the ambition of men who announce to the public who aspire to follow the medical profession that they have so many hospitals, and so many dispensaries, and so many people who apply to these hospitals, and it is an advertisement. We all know this is true. The dispensary is one of the essential factors in the success of the institution. * *

Now I know, and every one of us knows, that the professors identified with these institutions are obliged to go out and hunt up material if it is not sent or does not come voluntarily. Otherwise his use as a professor would be limited to his didactic functions which have been practically wiped out. Now if he is absolutely honest in selecting that material, and if the profession at large are honest in sending those people who are absolutely worthy, the whole subject is settled. * * It is simply a question of honesty on the

part of the profession at large.

Another point is, most of these people are foreigners. Everybody knows that abroad, the poor people are treated at public dispensaries. That is one of their inalienable rights. They can not pay the guinea which is demanded by the English surgeons. Those are the people who constitute 98 out of every 100 who apply to the dispensaries here, and they believe it is their right and primarily they do not go because of any desire to impose. It is simply a question of honesty on the part of the profession, honesty on the part of the clinical instructor.

Dr. W. A. Ward: I have been what you have been pleased to denominate a corporation surgeon for the past 12 or 15 years. * * * If I have been called I take charge of the case, but if they have got a family physician and want him he goes to him.

To the assertion that was made that the corporation surgeon was there with a paper trying to get a statement for that patient to sign, I can say that it is something I never saw or heard of. All the surgeon was ever asked to do was



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simply to get a statement of the facts, and submit them; and I have put in many an adverse report to the company. I have been sent to investigate cases in behalf of the company, and have returned to them an adverse report. I do not think they thought any the less of me for that. I always got a fair reasonable compensation for my services. I think there are others here in this room to-night who have occupied the same position, and if they have ever been called upon to do anything dishonest I would like to have them get up and make it known.

DR. WOODBRIDGE: I remember an instance of a railroad surgeon, I think it was on the Santa Fe, who was discharged and had something of an altercation with the corporation because he insisted upon doing his professional best in prescribing trustworthy medicines when the corporation demanded that he should use a particular article. *

We all know the matter is a matter of public record that those are the rules which corporations enforce; and we recall physicians and surgeons who have been discharged because they could not conscientiously accede to those rules,

and men who could have been put in their place.

But there is something that always ought to be looked to; that is the remedy to the evil. * * * Bring about a change of the present corporation, conducted for profit in the transportation of passengers and goods throughout the country, and substitute a public service for the public good. It seems to me it would be possible for this Society, while this topic is before them, to inaugurate some action looking toward such an end. I would suggest that the matter be held open and a committee be appointed to draft such resolutions and inaugurate such a movement.

DR. ORWIG: There is one point in the discussion of the question of dispensary abuses that has just come to my mind. I have known this to be the case in a number of instances, although it has just now come to my mind. Of course the dispensaries, most of them, are conducted by very eminent men, and some of them by specialists in certain lines; and a great many people who are able to pay a reasonable fee instead of going to the specialist for his opinion, will go to the dispensary and get the opinion of the specialist there. I know that to be a fact. In that way the specialists who hold clinics are injuring themselves at the same time.

And then there is another thing. One of the gentlemen suggested that it was the fault of the physicians. Now I do not think so; I know, so far as I am concerned, it is not.





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I never send a man or patient of any kind to a clinic whom I think is able to pay. It it is a special case I will either send him to a specialist or have consultation. I do not believe physicians as a rule send patients to a clinic who are able to pay, simply in order to get a diagnosis.

DR. CRILE: This matter of corporations bringing pressure to bear is a matter I know nothing of. I dare say at least to the profession here such an evil as that is not known. I know but very few but so far as any such instructions, there may be rules but I have never read them.

DR. Cook: While I am perhaps looked upon as a corporation surgeon I am not a contract surgeon any more than I am a contract surgeon or physician for any family which I treat; but were I a contract surgeon I should take this position. It has been customary in all large cities, by practitioners of medicine, to do work, family work, by the year. That is done as I say in almost all of the large cities and by some of the best men in the profession. has been done in this city and in many of the eastern and western cities. Physicians agree to treat the family for so much per year. They are paid a stipulated salary. That is considered legitimate medicine. If that is considered legitimate I can not understand why contract surgeons, as such, and working for corporations, are not doing legitimate business. I believe an injustice is done corporations by the statement that they induce or attempt to influence in any way their surgeons to state other than actual facts which exist. I do not believe that they act as medico-legal advisers to the company. So far as I am concerned I do it simply as I do family work. I go when I am sent for, I charge my regular fees, and my fees are paid. I make out a statement in regard to the nature of the injuries and give as near a perfect statement of the injuries as I am able to give. The company have never asked me to color it. They have never asked me, in giving testimony in court, to color it one way or the other. I believe corporations are desirous of getting at the actual facts. Whether or not the injuries are or may be permanent, and also the actual facts so far as the influence of that accident is concerned. . If the fault lie with the company I find they are always ready and willing to settle and do what is just and right by the injured. I believe that this is not only the case in street railroads but in others. Yet I can not see how that can be in any way detrimental or injurious to the profession any more than doing family work by the year would be detrimental. That is done and is recognized as being professional, and straight and honorable, and is done by the best men in the profession.



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Dr. Hobson: It is not necessary to prolong this discussion in regard to the contract surgeon much further. In regard to the relation of the railroad companies to the railroad surgeons, I do not believe that many of this intelligent audience believe that the evils which our essayist has pictured exist in reality at all. I have done more or less railroad work for a good many years and it has been most pleasant in every way. My relations with the patients have been exactly the same as my relations to the patients of private practice. Railroad companies have never asked me to color reports in the least, in any way whatsoever, and I am sure I never will be asked to. Facts are all they want in connection with it. The statement made in regard to the railroad surgeon sitting down by the bedside of the dving patient and asking him all about the injury I believe exists all in the imagination of the speaker.

As to its demoralizing influence upon the profession—during the past summer I attended the National Association of Railway Surgeons, in Chicago, and at a clinic given by Prof. Nicholas Senn in one of the hospitals of the city I saw 700 surgeons from all over the United States; and a more intelligent lot of men I have never seen, and they did not look as if they were being demoralized. I think the evils which the essayist has mentioned here exist very largely in

imagination only.

DR. TUCKERMAN, (closing): You know the great physical problem just now is the obtaining of light without heat. It seems that we have been obtaining considerable

light with some heat. (Laughter).

Those rules issued by the corporations mean something if they want to turn the screws on. Once upon a time, our honored member, now dead, Dr. —, was called on for testimony by the Brooklyn Railroad, and his testimony was not satisfactory to the company. He was fired from his position. At last accounts the remaining part of his bill that accrued was still unpaid. Roads have consolidated since, and from Dr. Cook we find that they have reformed.

I have to discuss this question from the standpoint of Cleveland. As I stated, I intend no reflection on any member of the Society. We are all medical gentlemen. But from what I learn from the study of the medical journals all over the United States, I think the corporations put on the screws pretty tight. When they were looking for a substitute for the man who wanted to put too good drugs down the men who were injured, they inquired specifically for a man who was good on the witness stand.

When a member of the profession comes in the position





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of an employe where one man can fire him from his whole job, his position of independence is gone. The independence of the physician through all time has been dependent on the fact that he was not employed by any one person that could cut off the whole of his income and the whole of his practice; and when one man got mad at him and went to another physician, some other fellow got mad at some other physician and came to him.

We see a physician coming into the position of an employe of the company; a large part of his business coming from that company. He is coming into a position of dependence instead of independence. And when the time comes to put on the screws, he is not in a position to resist.

I think a free discussion of these problems is likely to prevent its striking Cleveland so hard. I remember one instance in my own case, and the doctor was not to blame for it. A member of one of my families was injured by a certain railroad in this town. He sent for me. I found a fracture of the leg and went home for my dressings. When I came back, I found the superintendent of the road there. "Well," he says to them, "if you keep this man, we will not pay the bill." "We are going to have our surgeon." I said: "Did I ask you to pay my bill? I have not any bill against you. If you are responsible for this man's injury, that's another thing." Now, while the doctor did not do that, the agent does it. And I have good evidence that when a man in the Nickel Plate Railroad employs his own surgeon, the bill of that surgeon is deducted from the amount they pay him. They bring pressure to bear to prevent him from employing his own surgeon. I have had one or two instances of that kind. These things are not done by the surgeon, mind you. He is not the one who does it. It is the agent of the company who brings the pressure, and the surgeon puts on the plaster.

(To be continued).

THE PATHOLOGICAL JOURNAL CLUB.

Second Regular Meeting held at the college building of the Medical Department, University of Wooster, Thursday

evening, October 17, 1895.

After transacting some preliminary business, the regular program was introduced by a reading of a translation and abstract by Mr. Leuke of "Some Experimental Studies upon the Association of Bacillus Anthracis and Staphylococcus Aureus."





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Mr. Masche asked what was meant by the Bacillus of Fraenkel.

DR. Ohlmacher replied that he thought some continental bacteriologists used this term for the *Diplococcus lanceolatus*.

Mr. Balicip asked whether the toxin of the anthrax bacillus was increased in virulence, or whether the resistance of the animal was weakened by the staphylococcus toxin, when both bacteria were injected simultaneously in doses so small as to be harmless if either had been injected alone.

Mr. Leuke replied that the experimenters believed the toxin-production of the bacteria to be increased in virulence on account of their association at the site of injection, and that the resistance of the animal was not lowered. In proof of this, he called attention to the experiment in which the anthrax culture was injected on one side of the body, and the staphylococcus culture on the other, when no harm resulted.

Some further discussion followed and then Mr. Wise read his abstract of Dr. Welsh's report on "The Antitoxin Treatment of Diphtheria." Following this, Mr. Leuke read some statistics from the Berlin hospitals before the antitoxin days which he had obtained from Schmidt's Jahrsbericht.

A long and interesting discussion followed upon this subject in which the President and Mr. Wise were frequently called upon to answer questions proposed by various members.

A. L. Smith, Secretary.

THROAT, EAR AND EYE SECTION OF CUYA-HOGA COUNTY MEDICAL SOCIETY.

The Regular Monthly Meeting of the Throat, Ear and Eye Section of the Cuyahoga County Medical Society was held at the Stillman, Friday evening, December sixth, about

twenty members being present.

Dr. Sherman presented an interesting paper on "The Use of the Electro-magnet in Determining the Presence of Pieces of Iron and Steel in the Eye." He spoke of a case in which several pieces of steel had been removed from an eye by the electro-magnet, but laid emphasis on the statement that the magnet was constructed for an aid in diagnosis and not for the removal of metallic bodies.

A free discussion followed not only in regard to foreign





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bodies in the eye, but also in regard to injuries of the eye, and the fact was shown, that one of the most common causes of loss of sight in children, is from sharpened pencils carried to and from school.

The Section therefore urged the School Board to provide for the sharpening and keeping of pencils at the school

buildings.

Dr. C. W. Smith's paper on "Hot Water in the Treatment of Inflammation of the Pharynx and Naso-pharynx" brought out some new points in regard to the method of applying local heat and was substantiated by a report of cases in which the result was very beneficial.

This paper will be published in a subsequent number DR. J. M. INGERSOLL, Sec'y.

of the GAZETTE.

BELMONT COUNTY MEDICAL SOCIETY.

Belmont County Medical Society met at the parlors of the Windsor Hotel, Bellaire, O., Nov. 26, 1895, with fifteen mem-

bers present.

The following officers were elected for the ensuing year: J. C. Workman, M. D., Uniontown, O., President; I. W. Long, M. D., Bellaire, O., Vice-President; W. O. Huston, M. D., Bellaire, O., Recording Secretary; G. H. Colville, M. D., Harrisville, O, Treasurer.

On motion society decided to hold its next annual banquet in Bellaire, O., the time and all arrangements to be decided by

a committee of five appointed for that purpose.

PROGRAM.

Dr. J., C. Workman read a paper on "Diseases of the Middle Ear" and reported a case running into cerebral abscess and ending fatally. The paper was discussed by several members.

Dr. A. K. Hewetson of St. Clairsville, O., read an interesting paper on "What is the true position of Alcohol as a remedy and our duty as physicians in prescribing it." The doctor took a very decided stand against the use of alcohol in medicine and that it should be rarely if ever prescribed. In the discussion that followed a considerable variety of opinion existed among the members as to the true place of alcohol in medicine, but all agreed that great caution should be observed in its use. All members stated they were using it less than formerly. On members stated they were using it less than formerly. motion society endorsed Dr. Hewetson's paper as its sentiments. Dr. W. O. Huston read a paper on the "American Disease" or Dyspepsia, which was discussed by several members. Dr. J. L. Hervey of Martins Ferry, O., on invitation of society reported an interesting case of amputation of left arm of fœtus in utero, suggesting the possibility of maternal impression as a cause, as the mother had witnessed an amputation during gestation. He also reported a severe case of typhoid fever in a child in which life was saved by coffee and whiskey in large doses.

Society adjourned to meet the last Tuesday in Feb. 1896. J. M. HOGAN, Pres. pro tem.

W. O. HUSTON, Sec.



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THE GAZETTE is sent to every subscriber until ordered stopped. When directed to discontinue, at the time of subscribing, the journal will cease coming when time expires. CHANGES FOR ADVERTISEMENTS, or addresses, must reach us not later than the fifteenth day of the month, preceding issue to be corrected in the current number.



WHAT IS NEEDED IN OUR MEDICAL JOURNALS.

Sir Astley Cooper, in the introduction to one of his classical monographs, says: "My rule has been to publish that only which I could show to those who were skeptical, and were yet desirous of arriving at the truth." If every author would adopt this plan and would merely write of what he has observed or is capable of demonstrating and exhibiting to others, the medical press would not be overwhelmed by the confused opinions and conflicting theories



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which obtain in the present "original article." Too often this "original article" has nothing individual or original in it, but is merely a compilation of everything that has been published on the subject, and the authorities to which the writer chances to have access, determines his conclusions.

By adopting the method suggested above, the science of our profession would be materially advanced. The personal element in the publication would be an incentive to others to make known their experience along similar lines. Not only this, but there would soon be gathered numerous useful specimens of normal and morbid structures. Such specimens, together with a concise history of each, would furnish an invaluable source of knowledge. Every doctor of average practice has had a number of unique and interesting cases. A report of one of these would be of great assistance to some other practitioner who has a similar case, as well as of great value to the literature.

But these cases are often not reported, and one reason for the failure to do so, is the feeling that an exhaustive treatise is necessary. Again, the writer may feel a certain hesitancy in reporting a single case. But one case carefully observed, scientifically treated, and properly recorded, is of just as much value as a dozen cases.

The preservation of specimens is quite as important as the record of the case. Nearly every physician has, stored away in his inner office, some rare and unusual specimens which he has preserved out of his practice. Usually no history has been kept along with the specimen, and it is often imperfectly dissected and preserved. The number of such specimens in the possession of each physician may be small, but if they could be collected, catalogued and preserved, they would become of great value to the profession. Let each one carefully preserve and record the specimens of tissues that may come under his observation. No better work could be done by our medical societies, next to the establishment of a library, than the collection, catalogueing and preservation of specimens. The medical colleges are also only too glad to add to their collections for purposes of illustration all such specimens, to preserve them carefully,





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and to give the donor every credit for them. May we not hope to see in the columns of this journal more articles such as has been indicated, and in our midst a museum of pathology to which the profession of this district may have free access and which shall be an incentive to all its members to more study and a more careful observation and recording of cases?

C. B. P.

EIGHTEENTH CENTURY THERAPEUTICS.

The following amusing quotations are taken from an ancient medical work entitled "Therapeutics; or the Art of Healing," by Thomas Marryat, M. D., seventh edition, published in London in 1785.

"Madness is a total privation of the due exercise of reason, from some fortuitous injury to the organs of cogitation. The cause: A preternatural accumulation of the vital heat, or nervous influence in the brain, with some impediment to its usual course from thence along its nervine conductors. It is justly called by Galen, intemperies ignea cerebri. Its principal seat seems to be in the cortical, while the usual determination of it to the medullary part of the brain is prevented; consequently the cerebellum not equally participating of this enlarged quantity of heat, the exit of more than the customary quantity by the par vagum to the heart is precluded; for this disorder is sometimes attended with little or no fever."

In speaking of Syphilis this ancient writer says: "This distemper is by no means a native of Europe, but was first imported by Christopher Columbus to Naples from America, and spread through that city with prodigious rapidity. Somewhat more than a year after his return from his first voyage, the French army sat down before Naples in the year 1494. The Neapolitans being distressed by a scarcity of provisions, thought it necessary to discharge the most useless persons from their town, among whom were the courtezans, who were received by the besiegers with their usual politeness to that sex; the horrible ravages which this disorder soon after made in the camp obliged the French to raise the siege;





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upon this account it obtained the name of the French disease, and will in all probability ever retain it, notwithstanding the umbrage France has taken at, and the repeated efforts she has made to shake off the opprobium."

"It was then a new disorder, and certainly was never known in Europe before; for whatever has been advanced to the contrary might easily be refuted. The physicians were puzzled, the people were alarmed, for it was supposed to be equally as infectious and fatal as the pestilence; neither monasteries nor nunneries were exempt from it, nor even the holy fathers of the conclave; it was to be catched (heaven bless us!) by being in the same room with an infected person, or walking on the same side of the way in the street—but, however, with due deference to the characters of the saints of those times, it cannot be taken without contact. So deplorable was the situation of affairs then, that thousands were deserted and left to rot without the least assistance."

This old author claims to have been the first (so far as he knows) "who gave the sublimate inwardly" for Syphilis, the following prescription he decided upon after innumerable trials in the year 1753.

"Take of Sublimate, five grains,
Marine Acid, ten drops,
Rhubarb, a drachm and a half,
Simple Syrup, enough for pills.
Twenty-four; two to be taken every night and morning."

QUINSY—ITS CAUSES AND PREVENTION.

In a paper read before the Indiana State Medical Society, Dr. L. C. Cline of Indianapolis, said:

The conditions necessary for the growth of bacteria are a certain degree of heat and moisture, with a liberal supply of food, oxygen, seclusion and rest, all of which conditions we find abundantly supplied in the position and anatomical construction of the tonsils. Swarms of bacteria find lodgment in the crypts of the tonsils, and there receive the nec-



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essary elements of food from the lymphatics beneath or from the oral cavity. Quinsy never occurs in the normal or healthy tonsil, but only in cases where there is hypertrophy or a chronic or subacute inflammation with consequent local depression of vitality, thus enabling the microbes to invade the deeper tissues and produce the inflammatory conditions that are incident to their growth. As a direct result of the subacute inflammation of the follicles, may be added the cheesy concretions which may decompose and form follicular abscesses. These decomposing masses of cheesy matter, swarming with streptococci, are the cause of a large per cent. of the cases of quinsy.

The immediate relation that exists between tonsilitis and rheumatism is a matter of common observation, which has led many to believe that the attacks are due to rheumatism, and this view has been supported and strengthened from the favorable results of the anti-rheumatic treatment.

New light has recently been shed upon this subject by the investigations of H. II. Wagner, of San Francisco, and reported in the New York Medical Journal October 27. Dr. Wagner found that by aspirating the joints of rheumatic patients with a hypodermic needle a few days after an acute attack of tonsilitis that the fluids taken from these joints and also the urine contained the same bacteria that were found in the inflamed tonsils a few days prior to the attack of rheumatism. His investigations pretty clearly show that the supposed rheumatic inflammation of the joints following acute attacks of tonsilitis were due to infection through the tonsils, thus showing that the rheumatism was a result of the tonsilitis rather than the tonsilitis the result of rheumatism. Enlarged cervical glands are a matter of common observation during an attack of acute tonsilitis, the most reasonable explanation of which is infection. The exciting cause is usually attributed to wet and cold. Why should exposure to wet and cold cause tonsilitis more than inflammation of any other part or organ of the body? When we have toothache, conjunctivitis or appendicitis do we attribute it to a general systematic affection or do we look for local causes? We should no more expect tonsilitis or quinsy to



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occur without a local cause than we should expect a toothache in a perfectly sound tooth.

Dr. Cline believes we can prevent recurrent attacks of quinsy by destroying the crypts or pockets through and in which infection is allowed to enter. The cure consists in removing all that portion of the tonsil that projects into the pharynx beyond the pillars, and then destroying the remaining ends of the crypts with the galvano-cautery or caustics. If this is done thoroughly you can promise your patient that their immunity is as certain as that they will not have measles the second time.

LET US HAVE A MEDICAL SOCIETY EVENING.

It would be a good thing if the medical profession of this city would settle on one evening in the week as medical society evening just as the churches have already settled on Friday evening as prayer-meeting evening. There are enough medical societies and sections to keep one evening, say Thursday evening busy. There is the Cleveland Medical Society, which needs two evenings a month, the Medico-legal Section and the Laryngological Section of the Cuyahoga County Medical Society one evening each, and more to come in the near future most likely. But the evening chosen ought to be some other than Friday evening, for the churches have a prior claim to that. It may be urged that the Physician needn't go to prayer-meeting in view of the excellence of his practice. On the other hand it may be maintained that the church member need not go to medical society on account of the high character of his profession. Be that as it may, if our aim is to get the whole medical profession together and working unitedly for the common good, it is not good policy, to say the least, to choose for regular medical work an evening upon which a number of our physicians feel that their duty calls them as regularly in another direction.



A Contribution to the Experimental Studies upon the Association of the Anthrax Bacillus with the Staphylococcus Pyogenes Aureus.*

By Dr. Lucien Beco of Lucttich, work carried on from the Anatomical Pathological Institute at Tuebingen.

In regard to the antagonism of the B. anthrax and Staphylococcus pyogenesaureus not much has been written. De Freudenreich noticed in old filtered cultures of Staphylococcus, normal growths of anthrax and also the reverse, that in old cultures of anthrax the cocci were found. Pawlowsky saw a rabbit recover from these microbes after a large amount of pus had formed. Baumgarten and Czaplewsky state that guinea-pigs, inoculateda at the same time with only a small quantity of Staphylococcus and a large amount of anthrax bacilli, died of septicæmia, the anthrax having disappeared. These investigations were the stimulus of our experiments.

The B. anthrax used in our experiments had been grown quite a while on artificial media, and had ceased to form spores, while the virulence had become so slight that it had no effect on rabbits. It killed mice in twenty-four hours. The Staphylococcus had very recently been

obtained from a mastoid abscess.

Equal parts of B. anthrax and Staphylococcus from agar cultures were inoculated in a large number of bouillion tubes and placed in the incubator for forty days at 37° C. At the same time anthrax cultures were made and treated as the mixed culture.

The bouillion containing these two species clouded after the first day, after which the precipitate fell to the bottom. About the fifth day white threads appeared, whose number increased. The fluid darkened and became more alkaline. Microscopical examination shows that the cloudiness is due to the great multiplication of the staphylococci, among which are a very few anthrax bacilli. The masses of thread however consist of anthrax surrounded by cocci. The length of life of both kinds grown together in this way is normal. Thus we see that the Staphylococcus stops the growth of the anthrax B. to some degree but does not destroy its vitality.

^{*}Translated and abstracted from the Centralblatt fuer Allgemeine Pathologie und Pathologische Anatomie of Sept. 1, 1895, and read before the Pathological Journal Club, Oct. 17, 1895, by A. W. Lueke.

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To determine whether the virulence of both microbes e changed, plate cultures of the two grown in bouillion, a made. Then at the end of three, four, six, eight,

were changed, plate cultures of the two grown in bouillion, were made. Then at the end of three, four, six, eight, fourteen and twenty days plates were inoculated from the bouillion, which had been growing at 37°, and the two bacteria were thus isolated. The anthrax cultures grown for 24 hours each on agar, having been isolated, were inoculated into mice, all of which died inside of twenty-eight hours. At the same time cultures of the same age which had not gone through the mixed culture process were inoculated into mice. These mice died in the same time. These experiments showed that the B. anthrax had not lost any of its virulence on account of the staphylococci.

To determine whether the virulence of the Staphylococci had increased, two mice received an injection of the staphylococci, which had not gone through the mixed culture, two more received the same quantity, which had been isolated from a six days growth in a mixed culture, and another pair were inoculated from a twelve days growth, after the staphylococci had been separated from the B. anthrax. None of these died. All had small abscesses, which disappeared in a few days. We see by these experiments that the virulence of these microbes had not changed.

Seven mice were inoculated with 0.5 c.c. of six day old mixed bouillon. Six of these died in twenty-four hours. On incision of the skin we found hyperæmia and reddish ædema. Investigating the spleen, we find it small and of normal color. Microscopical examination shows a large quantity of leucocytes in the heart blood. On making smear preparations we found a large number of staphylococci present in the ædema, heart blood, portal vein, spleen and The seventh mouse expired in two and one-half days. The place of injection showed infiltration of pus. The spleen was large, black and swollen. In the blood of the heart the normal amount of leucocytes were present. A culture from the place of inoculation showed many cocci, while the liver and spleen showed a great many anthrax bacilli, and four or five colonies of staphylococci in the culture tubes. The heart blood showed B. anthrax. The results show that six mice died of septicæmia, caused by the staphylococcus, and only one from the B. anthrax, after a longer interval than is usual from anthrax poisoning.

In the fourth experiment we inoculated seven mice with a mixture composed of an anthrax culture of twenty-four hours, and one of staphylococci of the same age. These were mixed at the time of inoculation. Four died in twenty hours of septicæmia, the others from splenic fever.

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The first two in two days, the last one in two weeks. Sections and results of cultures proved the same as in the foregoing. In this experiment the dilution of staphylococci was weaker than in the third experiment.

In the fifth we will diminish the strength of the staphylococcus still more. Three mice are inoculated with 0.1 c.c. of cocci and 0.4 c.c. of anthrax bacilli, mixed at the time of inoculation. The three all succumb inside of twenty-eight hours from septicæmia, due to the staphylococcus. The

cultures from the organs show no anthrax.

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These two experiments demonstrate to us, that if we inject the staphylococcus and anthrax bacillus at the same time in the same place, we get a notable increase of the staphylococcus. In most cases the greatest increase occurs at the inoculation spot and in the blood. It retards the development of the anthrax and leads to a rapid death. In those cases, which are in the minority, where the increase of the staphylococci is not enough to cause death, the anthrax develops and causes death a good deal later.

In the sixth experiment four mice received an inoculation of anthrax on the right shoulder and one of staphylococcus on the left. Death came in twenty-eight hours. Where the staphylococcus was inoculated there was only a small pocket of pus. On the other side there was a limited gelatinous ædema, which gave a pure anthrax culture. The blood liver and spleen all gave pure anthrax cultures. This demonstrates that if the microbes are introduced in different parts of the body, the animals die of splenic fever.

Exp. VII. A dilution of the bacillus anthrax is sterilized for two hours, then mixed with an ordinary dilution of staphylococcus. This is injected into five mice. Two of these displayed an abscess, where they were inoculated. One of these expired in five days, the other in

eight days, while the other three did not succumb.

We notice two phenomena about these experiments, which we report. First a noticeable increase of the virulence of the staphylococcus in combination with the anthrax bacillus, and second, the antagonistic influence exerted upon the anthrax bacilli by the organism, due to the development of the staphylococcus pyogenes aureus. The second one of these facts seems to us to be of less importance than the first. When the staphylococcus multiplies and spreads and brings on a deadly septicæmia, the development of the anthrax is checked. When the staphylococcus does not multiply, and confines itself only to a pus formation, the anthrax will then increase and spread, but slower than if alone. Finally when the coccus is wholly confined

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and does not come in contact with the anthrax, the latter will develop and cause death in the usual time.

The question now arises, what is the mechanism by which the staphylococcus is strengthened in contact with the B. anthrax. We believe that this mechanism is of a local nature, since the inoculation of the microbes is made at the same place, and further, that it does not occur when the B. anthrax is killed at 100° C.

Why does the staphylococcus check the development of the anthrax? In other language, why is there an antagonism between the two microbes in the organism, while none exists in artificial culture media? First we see that in the living body the staphylococci are not wholly indifferent to the anthrax bacilli, but this difference is only moderate in artificial culture media, and is marked by early degeneration. These alterations are probably not very extensive, but under no circumstance can we compare the tissues of the organism with an artificial culture media. The chemical composition of both is different to a considerable extent, and therefore, the products which develop from the staphylococci must be. Besides, the living tissue is not an idle, passive substance, but one which reacts against the staphylococus irritation by dilation of the blood-vessels and the formation of extravasates, which contribute to render the soil unfit for the development of the bacillus of anthrax.

THE TREATMENT OF DIPHTHERIA BY ANTITOXIN.*

This important paper by Professor William H. Welsh of Johns Hopkins University (The Johns Hopkins Bulletin, Nos. 52 and 53, July, August, 1895), which represents the substance of an address before the Association of American Physicians at its last meeting, is without question the most complete and valuable contribution to the subject which has appeared in English. No one in the United States is better qualified than Dr. Welsh for the performance of this task, which calls for a thorough familiarity with the pathology and bacteriology of diphtheria, a keen sense of discrimination in sifting the already voluminous literature on antitoxin treatment, and a conservative judgment which lends weight to the conclusions.

In this contribution, a critical analysis is made of 7166 cases of diphtheria treated with the antitoxin in all parts of the civilized world, and from a careful study of these statistics, it is found that the mortality was 17.3 per cent.

^{*}Abstracted and read before the Pathological Journal Club, Oct. 17, 1895, by Mr. W. D. Wise.





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In many cases in which the results of antitoxin treatment were given in this series, the reporters gave simultaneously a record of cases of the disease alongside of those subjected to the new treatment, which were treated in some other way. These cases, not treated with the serum, numbered 5706, and the estimated death-rate was 42.1 per cent. "There was, therefore, an apparent reduction of case mortality by the use of antitoxin of 55.8 per cent."

Tables are introduced which speak unerringly for the life-saving value of the diphtheria serum in connection with intubation and tracheotomy, a fact which surgeons ought to

hail with delight.

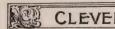
The statistics according to the age of the patient, both without and with antitoxin are very forcible in their arguments for the remedy. One of the most interesting and important studies made by Welsh is represented in Table IV., in which the death-rate according to the day of treatment is set forth. In a summary of 1489 reported cases, 222 were treated on the first day of the disease, with 5 deaths, a mortality of 2.2 per cent. On the second day, of 456 cases, 37 died, or a mortality of 8.1 per cent. On the third day, the death-rate was 13.5 per cent.; on the fourth day, 19 per cent.; on the fifth day, 29.3 per cent.; and on the sixth day, 34.1 per cent.

With such figures staring him in the face, how can any conscientious physician delay the use of this wonderful remedy until his patient has passed beyond hopes of recovery. The prompt use of the diphtheria culture test in every case of questionable sore throat, and the immediate use of the antitoxin whenever the Loeffler bacillus is found, would, according to these figures, rob this dreadful disease

of all its terrors.

The imperfectly founded arguments of the opponents of the antitoxin treatment are well met by the statement that a single unsuccessful case is put down to the discredit of the serum without reference to its peculiarities, and that, on the basis of an experience in treating a dozen cases, some writer will boldly attack the results established by the careful observation of hundreds of cases.

In closing his report, Dr. Welsh makes these very pertinent remarks: "The principal conclusions which I would draw from this paper is that our study of the results of the treatment of over 7,000 cases of diphtheria by antitoxin demonstrates beyond all doubt that anti-diphtheretic serum is a specific curative agent for diphtheria, surpassing in its efficacy all other known methods of treatment for this disease. 'It is the duty of the physician to use it.'"





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THE DETECTION OF THE DIPHTHERIA BACILLUS.*

In the New York Medical Journal for October 5, 1895. appeared an article on "The Detection of the Diphtheria Bacillus by its Peculiar Reaction towards Certain Stains," by H. C. Crouch, A. M., M. D., Director of the Bacteriological Laboratory of the Denver Health Department, Denver, Colorado.

His method of detection is as follows: A cover-glass preparation made in the usual way from a serum culture not over twenty-four hours old, is treated for a few seconds with methyl green and examined in water; this stains the majority of the bacilli faintly green, while both ends of the bacilli contain a well defined, round body, deeply stained, and of a distinctly reddish color. This effect is more striking in the shorter forms and may be increased by con-

trast staining.

The following mixture was used with much success: five parts of a one per cent. solution of methyl green, one part of a one per cent. solution of dahlia and four parts of water. A mixture of fifteen parts of a one per cent. solution of methyl green and one part of carbol fuchsine may also be used, but the stain is not permanent. However, first staining with the dahlia methyl green more deeply, and then following with an aqueous solution of methylen blue or Bismarck brown will bring out the red bodies much more prominently. The Bismarck brown Crouch regards as a safer and more delicate method for general use.

The author considers the reaction of the diphtheria bacillus at a certain stage towards these stains as characteristic and that at least none of the ordinary bacilli of the mouth take the stain in this way. Moreover, the diphtheria bacillus will give the reaction above described in a direct cover-glass preparation of the membrane, stained one or two seconds with the dahlia-methylen green solution, and wherever these peculiarly stained bacilli are found in these direct preparations, without exception diphtheria bacilli develope in the cultures. Thus, this reaction is of the greatest importance in making an early bacteriological diagnosis of diphtheria and in detecting the bacilli in cultures where the excessive growth of other bacteria may cause them to be overlooked.

As to the nature of these bodies, he is inclined to think

them of nuclear origin.

Quoting from a letter from Dr. Crouch, he says: "The point of my article is that we can make use of them (the

^{*}Abstracted and read before the Pathological Journal Club by Mr. J. M. Firmin.



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peculiarly stained bodies) as a distinguishing feature in diagnosis, with considerable certainty. At the same time, I would call attention to the ease and certainty with which they can be put in evidence." And again he says: "I have made from sixty to seventy examinations from swabs, noting the results in the last few months. The culture examined on the following day likewise noted in every case. In over 80% of the cases where the cultures were positive, the preliminary examinations had been positive."

the preliminary examinations had been positive."

At Dr. Ohlmacher's suggestion, the above methods were tried by me in the Bacteriological Laboratory of the Medical Department of Wooster University, with the following results: In ten cases, the preparations made from serum cultures, not over twelve hours old, and stained with Crouch's dahlia methyl-green solution gave, without exception, the bright bodies in some of the bacilli. Some bacilli contained the bright red granules at both ends, others contained three or four granules, while in some, none at all could be seen. A few micrococci contained bright red bodies resembling those in the bacilli, but they could be readily distinguished from the bacilli.

In a preparation from a tube of dry serum culture three

weeks old, no results were obtained.

In preparations from serum cultures two and three weeks old respectively, treated by the above method, the bodies contained in the bacilli were brought out very faintly

Dr. Ohlmacher in making direct cover-glass examinations with Crouch's method obtained good results in every case where the diphtheria bacillus developed afterwards in cultures.



BY L. B. TUCKERMAN, M. D.

It will not do to put our trust in the antiseptic properties of *iodoform* any longer. True, it seems to promote the process of healing to a very great degree, and most of us have been in the habit of feeling that when we have thouroughly cleaned a wound, all we have to do is to dust it with iodoform to be certain of its remaining aseptic. But the bacteriological iconoclast is getting in his work and, it must be admitted, the results seem to show that iodoform is not an antiseptic in the general acceptation of the word, i. e.,





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it cannot destroy bacteria as corrosive sublimate, carbolic acid and other germicides do. The most recent experiments in this line are those by Dr. Joseph Meitus, of Cincinnati. He shows that staphylococcus aureus will grow and flourish in iodoform-gelatine paste and in a mixture of pus and iodoform, even though in both cases the iodoform is decomposed and iodine freely liberated; that packing an infected wound with dry iodoform will not prevent the formation of abscess, nor even modify its size or appearance; that dry iodoform, if it have become infected with streptococci, will inoculate a fresh wound and will produce abscess. He finds, however, that iodoform as bought from the drug-store is sterile in the majority of cases. This is a fortunate accident, and to this happy chance it is doubtless due that we have not have had more unfortunate accidents from the careless use of iodoform under the notion that it is a germicide, whereas it is not a germicide at all, but a dangerous substance, because if once infected itself, it is very likely to cause trouble when coming in contact with a freshly made wound. We should therefore be as careful with our iodoform and iodoform dressings to sterilize them and keep them sterile as we are with any other dressings. author cited sterilizes his iodoform as follows: a cold solution (1:1000) of corrosive sublimate, adding to it a 5% solution of carbolic acid. In this fluid he washes the powdered iodoform, putting the fluid in a Petri's cup, then adding the powder. The cover is put on and the cup shaken at intervals to mix up the contents thoroughly. the end of twenty-four hours the fluid is removed with a siphon, the cup is covered by an aseptic funnel, the narrow end of which is plugged with sterilized cotton, and then left in a warm place till the powder is dry. This usually takes from one to three days. Experiments show that when so treated, iodoform powder is sterile. It should be kept in small bottles, also carefully sterilized, and when a portion is required for use, it should be poured out onto an aseptic plate—a spatula should not be inserted into the bottle. The same rule: small packages, carefully sterilized and carefully kept sterile, apply with equal force to iodoform gauze and other iodoform dressings. But whether or not iodoform is a bactericide, clinical evidence is overwhelming that applications of iodoform do promote the rapid healing of granulating surfaces. Taking advantage of this, Dr. Joseph B. BACON, of Chicago, is curing fistula in ano without cutting the sphincter, thus avoiding that distressing incontinence of feces and flatus which so often is found to follow section of the sphincter

¹ Lancet Clinic, Oct. 5, 1895.

² North American Practitioner, August, 1895.



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except when the lesion is so situated that the cut can be made in the anterior or posterior median line. He says: "I have in several cases operated successfully for the cure of fistula in ano where the opening into the bowel was at the side of the anus or rectum, and left the sphincter muscles intact further than to moderately divulse them in order to give them rest for a few days after the operation. In those cases where the fistula was of long standing and the fibrous tissue well contracted, I dissected out the tract from the external opening to the internal, freshened up the surface of the inner opening either with a curette or Paquelin cautery, packed the wound with iodoform gauze well up to the internal opening and also packed the rectum with gauze, taking care to have the gauze on both sides of the gut wall placed against the internal fistulous opening instead of entering it. The mucous membrane thus protected will in many cases unite primarily and thus change the wound from a complete fistula into a blind external one, which is easily treated by gently packing with gauze from day to day. In those cases where the inner opening does not heal primarily by the time the dressings are changed for the first time, if the external wound is well packed with gauze and the granulations protected at the internal opening, the canal will usually heal. The bowels must be daily moved after the first dressing by enemata. The first dressing where the rectum is packed with gauze should remain three or four days. Most cases of fistula in ano are the results of local tubercular infection, and the surrounding tissues as a rule are not in a good condition for primary union of the wound after an operation. On this account it is the exception and not the rule that one can unite the wound with sutures and get a happy result. There have been so many failures that I have practically abandoned the effort, and rely upon careful packing and dressings of the wound for a permanent result by secondary union of the tissues. When the tissues are sutured together and fail to unite and suppuration of the tissues around the sutures takes place, the wound is in a much more unfavorable condition for healing by granulation than if it had been packed with gauze at the primary dressing; and frequently the stitch abscess burrows into an adjacent lobule of fat in the ischio-rectal fossa and causes a new sinus to form that necessitates a second operation."

Up to the present the various treatments in vogue for *epididymitis* and *orchitis* can hardly be said to be satisfactory to practitioner any more than the disease is satisfactory to the patient. The actual cautery is good, but if used deep enough to do good, it leaves ulcers, and besides that, it is



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so painful that most patients rebel against its application. For cases as they run, the hot poultice or application with or without tobacco, and with such general antiphlogistic treatment as the individual physician may prefer, still remains the stand-by. During the last two years, however, DR. JAMES P. TUTTLE 3 has availed himself of the local anesthetic and antiphlogistic action of guaiacol, and, according to his reports, with the greatest of satisfaction both to himself and to his patients. His method is as follows: Ten minims of guaiacol are dropped into a butter plate or other small receptacle and then painted along the line of the cord and upper part of the scrotum. This is left uncovered for half an hour, the testicles and scrotum being elevated in the meantime. After this, the testicle is laid upon the abdomen and covered with a layer of flannel wet in hot water. Over this is laid an ordinary ice-bag filled with water as hot as the patient can bear. This retains the heat much longer than the ordinary poultice, and if not filled too full, produces a slight compression without pain, beside, the hot bag is much neater than a poultice. These applications are kept up till bed-time, when the parts are anointed with a 25 per cent. ichthyol in lanoline, covered by rubber protective tissue, and held up on the abdominal wall by a suspensory bandage or other support. On the following morning, the hot applications are renewed for from half an hour to an hour, the ointment is reapplied and allowed to remain till evening, when the process is repeated. In case the pain and fever have not subsided or have returned, the guaiacol may be reapplied, but it is generally best to wait for at least thirty-six hours before so doing. He has never had to apply the guaiacol more than twice in the same case, and the pain has never failed of relief within two hours after the application. In order to promote absorption of the induration remaining after the pain and fever have subsided, it is well to apply the hot bag for an hour twice daily, to administer small doses of iodide of potash, and to open the bowels every day with a saline cathartic.

As was emphasized by Dr. H. C. Wood, of Philadelphia, in his lecture last June before the Cleveland Medical Society, Cocain is antitoxic to chloroform so far as the latter tends to produce paralysis of the respiratory center, and so he recommended that cocain be given hypodermically with strychnia and digitalis to guard against mishaps with chloroform. Dr. Rosenberg, of Germany, is in the habit of availing himself also of the local anesthetic effect of cocain to prevent reflex accidents which may occur on

³ Jour. Cutaneous and Genito-Urinary Diseases. Oct. '95.

⁴ Med. World. Sept. '95.





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account of the irritating effect of anesthetic vapors on the superficial nerves of the mucous membrane of the respiratory tract, affecting especially the heart in the early, and also in the awakening stage of chloroform narcosis. Before beginning the administration of chloroform, he first sprays the nasal passages with a 10% solution of cocain, spraying again every thirty minutes if the anesthesia is prolonged, and repeating the process at the close of the anesthesia, no matter how short the period of administration may be. It is asserted that picric acid is good for burns. 5 Its virtues were discovered, it is said, accidentally by a medical student in the Hôpital de la Charite in Paris, and not only is it reputed to afford immediate relief to the pain, but to hasten the process of healing very much, so that it has superseded the usual treatment for burns in that hospital. It is used in aqueous solution as a lotion. The strength given is five grammes to the ounce. Probably that is a misprint, for picric acid is but sparingly soluble in water. More likely it should be five grains to the ounce. At any rate the remedy would seem well worth a trial.

5 Lancet-Clinic. Oct. 26, '95.



HANDBOOK OF THE DIAGNOSIS AND TREATMENT OF SKIN DISEASES.

By Arthur Van Harlingen, Ph. B. (Yale), M. D. 8vo., pp. 577. Third edition, enlarged and revised. With 60 illustrations, several of which are in colors. Philadelphia: P. Blakiston, Son & Co., 1895. Price, \$2.75.

This book is a very comprehensive one, embracing everything that could be suggested in regard to skin diseases proper, omitting nothing of a strictly practical character belonging to this important branch of medicine.

The alphabetical arrangement makes the book of particular value to the busy physician, who ofttimes has but a brief moment to look up the diagnosis or treatment of some perplexing case in hand. The illustrations, plain and in colors, are numerous, well executed, and do full justice to the text. The fact that this handbook has reached a third edition so soon after the appearance of the first, is in itself a sufficient guarantee as to its merit. The publishers have presented the book in their usually good style.





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BYFORD, GYNECOLOGY. A new book, by Henry T. Byford, M. D., Professor of Gynecology and Clinical Gynecology in the College of Physicians and Surgeons, Chicago, etc., etc. 234 illustrations, many of which are original. 12mo. 488 pages. Cloth, \$2.50. Philadelphia: P. Blakiston, Son & Co. 1895.

This is pre-eminently a practical manual, intended to convey to students, in a clear and forcible manner, a sufficiently complete outline of gynecology, and to initiate the inexperienced practitioner into the details of an art in which he may have had only inadequate opportunities for direct clinical instruction. We think that, especially in these gynecological days, a thorough study of such a manual as this (and we know of none in the English language better suited for the purpose) should be expected from every student as a preliminary to graduation, as much as the study of a work on general practice, or a manual on auscultation and percussion, and after graduation would remain of service for frequent reference. The chapters on Diagnosis, Technic, the Principles of Gynecological Treatment, and after Treatment of Operations, are minute in detail even to the duties of nurses, and are alone worth many times the price of the book.

The author's large experience as a teacher, and in hospital work, has made him particularly well qualified to address the profession on this rapidly growing department of medicine, and we doubt not that his book will speedily find its way into the medical schools, and be recommended in preference to any of the manuals on the subject heretofore published. Of the large number of excellent illustrations, many are original, and all add greatly to the elucidation of the text; these, together with the clear type, good paper, and handsome binding, add another laurel to the well-earned reputation of the Messrs. Blakiston.

This manual, written from the standpoint of the physician and student, rather than that of the expert, covers the ground admirably. Just how much of the subject matter has been contributed by Dr. Montgomery, we do not know, but the fact is apparent, however, that the clear and beautiful

Manual of Syphilis and the Venereal Diseases.—By James Nevins Hyde, M. D., Professor of Skin and Venereal Diseases in Rush Medical College, Chicago, etc., etc., and Frank H. Montgomery, M. D., Lecturer on Dermatology and Genito-Urinary Diseases, and chief assistant to the Clinic for Skin and Venereal Diseases, Rush Medical College, Chicago etc. Philadelphia: W. B. Saunders, 1895. Price, \$2.50 net.





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diction characteristic of Prof. Hyde's writings, is conspicuous throughout the book. The authors have certainly carried out, in a most satisfactory manner, their aim to supply in a compendious form, and with detail, all practical facts connected with the study and treatment of Syphilis and the Venereal Diseases. Controverted points and unnecessary data have been rigidly excluded, a valuable feature in any treatise. The most modern views in the pathology and therapeutics of the various affections are well set forth. The illustrations in the text, and the full-page plates in colors and tints, are numerous and display the highest artistic skill. This work will certainly take a front rank among the treatises dealing with Syphilis and the Venereal Diseases.



They Join Hands.—Hamline University and Minneapolis College of Physicians and Surgeons. President Bridgman, as soon as the consolidation was consummated, prepared the

following announcement for the public:

The authorities of Hamline university in this have now an important announcement to make to the friends of the institution, and to the friends of education in the Northwest. Hamline university has now a fully equipped medical department in actual operation. This has come to pass through the incorporation of the Minneapolis College of Physicians and Surgeons in Hamline university, as its medical department. This grafting of the Minneapolis college upon Hamline university has been under consideration by the authorities of both institutions for some time, and the matter has been negotiated to a conclusion satisfactory to all concerned. The proposition for union came from the Minneapolis college, and was accepted by the trustees of Hamline university, at a meeting of the board held in Minneapolis, Monday, Dec. 16, 1895.

Contagious Diseases and the Public Schools.—The New York Health Board has taken a radical departure, on the recommendation of the department bacteriologist, to prevent the communication of contagion among the pupils of the public schools.



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A number of new regulations have been adopted, among them being one abolishing the use of slates, pencils and sponges. The pupils are to be supplied with pencils and penholders, each pupil to retain those received in a box provided for that purpose. The transfer of pencils and pens from one pupil to another is forbidden. All books belonging to children from families afflicted with infectious or contagious diseases are to be disinfected or destroyed. The most radical of all the regulations, however, is one relating to the drinking water in the public schools. Places for drinking on the ground floor of the buildings are to be discontinued. Covered pitchers are to be provided for each room, in which fresh water must be placed before the beginning of each session, and each pupil is to be provided with a cup, numbered and reserved for the use of the pupil to whom it is issued, and no exchange of cups is to be permitted.

This may look like carrying precautions to the extreme to those who went to school in the days when it was common to "pass the water" and give all the pupils a drink from the same cup, and when not only books, but slates and pencils were freely exchanged among the pupils. But in those days no precautions were taken to prevent the spread of contagious diseases. Scientific investigation has discovered many of the dangers that used to lurk unseen in the common practices of the people, and not the least important of those discoveries relates to the dissemination of disease germs through the medium of the public school. It has been found absolutely necessary to adopt stringent health regulations for the public schools of all the big cities.

If physicians and parents would assist in the observance of them, epidemics of contagious diseases would be of rarer occurrence, and they would be more easily controlled when

they did occur. - The Leader.

Medical Fees.—The decision of the court in favor of Dr. A. C. Bernays of this city in his suit for the sum of \$5,000 for trephining Mrs. Arthur Duestrow, is a matter of more than passing interest to surgeons of this region of the world. It establishes the fact that for services of rare skill an operator may charge a sum commensurate with his reputation and ability as a surgeon. The bill was allowed in the language of the learned judge, not simply because the financial condition of the defendant was such as to allow so large a bill to be paid without serious inconvenience, but on account of the character of the operation which, of itself, was well worth the fee demanded. Large retainers to lawyers go unquestioned; that is a matter of saving of dol-



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lars and cents. But when a surgeon demands a sum, fairly reasonable—say \$3,000 to \$5,000—for an operation which saved a life, the lawyers, and the people generally, hold up their hands in holy horror; and cry "outrageous," "exorbitant," "highway robbery," etc. The fact is, surgeons charge too little, as a rule, for their valuable services. The precedent established in the case of Bernays vs. Duestrow is therefore of much value to the local medical profession, and will doubtless lead to the establishment of higher fees than those hitherto sustained in our courts—a consummation devoutly to be wished.—American Journal of Surgery and Gynæcology.

The College and Clinical Record will be hereafter known under the name of "Dunglison's College and Clinical Record: a Monthly Journal of Practical Medicine."

With the November Issue the CLEVELAND MEDICAL GAZETTE enters upon its eleventh year of existence. The second decade is begun on a larger scale, the general appearance is much improved and the size increased to 100 pages.—The Pittsburg Medical Review.

The Journal of Experimental Medicine. In January, 1896, will appear the first number of The Journal of Experimental Medicine, a periodical devoted to original investigations in Physiology, Pathology, Bacteriology, Pharmacology, Physi-

ological Chemistry, Hygiene and Medicine.

A suitable medium for the publication of articles embodying the results of original research is one of the most important conditions of fruitful scientific activity. The investigator in any department of science not only must know where to look for the literature of his own subject, but he needs a journal which shall furnish prompt and worthy publication of his own work, which shall supply good reproductions of all needed illustrations, and which by the character and excellence of its contributions shall circulate widely among all workers in the special fields of research embraced within its scope.

Within recent years scientific medicine has made great progress in this country. The standards of medical education have been elevated, well equipped laboratories devoted to the various medical sciences have been established and the number of well trained investigators has steadily increased. With these greater opportunities the contributions to the medical sciences by American investigators are rap-

idly becoming more numerous and important.

Hitherto we have been deprived of the great assistance which can be rendered by a journal devoted exclusively to

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the medical sciences above specified. We, ourselves, and still more foreigners, do not know where to look for many of the widely scattered original contributions of American investigators to physiology, pathology, bacteriology, and other medical sciences. A large part of these contributions are published in journals devoted mainly to the practical branches of medicine. Much of the best work is now sent to various scientific journals of Europe.

The time has come when we should have an American journal devoted exclusively to the publication of original work in the experimental medical sciences. Such a journal is an urgent need of our scientific workers in medicine. should secure both here and abroad due consideration of work done in this country. It should stimulate scientific investigation and should extend the influence of scientific medicine. The practitioner who wishes to keep abreast of the times will appreciate the value of such a publication.

It is the aim of The Journal of Experimental Medicine to meet the needs which have been described. The journal is to be devoted exclusively to the publication of articles containing the results of original work in Physiology, Bacteriology, Pathology, and the other sciences mentioned in the first paragraph of this Announcement. Especial care will be taken to supply good illustrations whenever needed.

That the journal will be of high character and truly representative of scientific medicine in this country is assured by the character of those whose co-operation has been secured. It is believed that the interest in scientific medicine in this country and the desire both here and abroad to find readily accessible the publications of American contributors to the medical sciences will secure a large list of subscribers for the support of the journal.

Dr. William H. Welch, Professor of Pathology in the Johns Hopkins University, is to be the editor of the new journal and with him will co-operate a board of twelve as-

sociate editors.

Dr. J. E. Cook was nominated for President of the Cleveland Medical Society.

Cuyahoga County Medical Society.—At the last meeting the constitution was amended to change the time of meeting from the first Thursday afternoon to the first Thursday eve-This is an important change that should have been made ten years ago. Arrangements have also been made to meet in the Arcade.

Cleveland Medical Society Banquet will be held at the Hollenden at 8 p. m., January 10. The ladies are invited.



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Freckles.—Prof. Hebra, of Vienna, insists that the sun does not produce freckles. They never appear, he says, in the newly born or in children under the age of six or eight years, whether exposed to the influence of the sun or not.

The "American Lancet." - When the announcement was made several months ago that the American Lancet would cease publication, we desired to learn something of the reasons that had brought about this result before bidding farewell to an old and valued friend. Nothing, however, could be ascertained beyond the fact the editor was afforded an opportunity of escaping from an arduous and incessant task, and that the publisher immediately started a new journal in Chicago. For almost 24 years, Dr. Leartus Connor filled the editorial chair of the journal with which he has been so long identified, and certainly within recent years to the disadvantage of his private practice, for the unceasing demands of editorial work admit of but little leisure time for anyone engaged in active professional work. His personality was always strongly impressed upon the editorial pages of the Lancet, and its influence was ever in the right direction and in the effort for professional betterment. There are too few journals of the type of the American Lancet: too few that think and act for the advancement of the profession regardless of present expediency, and with a broader view of the science of medicine and of our profession The Lancet was ever opposed to quackery and knavery within and without the profession. In the relation of medicine to pharmacy, and in its handling of all that is illegitimate therein, the Lancet spared none, and many times it must have trodden hard on the corns of the evil-doer. It is this especially that to an outsider might seem to furnish a reason why its publisher might desire that so trenchant a pen should be silent. Dr. Connor's unsparing treatment of the puffing of patented and proprietary remedies, the promiscuous furnishing of testimonials, and the unholy alliance between the advertising department and the editorial pages of many journals drew down upon him a large amount of abuse. This, with its accompanying ill will, may have been felt, by the publisher, to react upon his business, and, as the editorial pen was independent, a remedy could only be sought in its untimely suppression. It is a melancholy, but inevitable conclusion that such a journal is too good an article for a large proportion of the medical profession whose methods are more practical and commercial, and whose aims are entirely selfish. The suspension of the American Lancet is a distinct loss to current medical literature; we shall miss its regular visits, for it always



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contained good things, and its editorial pages were always worth reading. We shall hope that with more leisure and larger opportunities, Dr. Connor will continue to work more vigorously than ever for the advancement of scientific medicine, and for the right in all things professional.—Occidental Medical Times.

Medical Journals Should be Owned by Medical Men .-We wish once again to warn our subscribers and advertising patrons against bogus medical journals and fakir journalism. We do not refer so much to the few new journals, which, like mushrooms, spring up at this season and last for a day, but we wish to protest against the support which doctors and advertisers give to Munchausen sheets. Many of these snide journals are started by job printers, advertising agents, and other irresponsible parties, who cover their teeth and wolfish hair with the decent cloak of medical journalism. Such men are often not content with skinning advertisers by one medium alone; they buy or establish another journal or two, and like leeches suck the life-blood of their victims. Often the names of a score or more of doctors will adorn the front page—ignorant decoys that they are. We have always said, and we repeat it now: medical journals should be owned by medical men.—Tri-State Medical Journal.

The Fourth Revised Edition of the Medical and Surgical Register of the U.S., now in course of preparation by R. L. Polk & Co., Detroit, Mich., will, like its predecessors, fully cover its particular field and chronicle the changes in its various departments since the last issue. Every physician should possess a copy of the Register. It is published for the masses of the profession and contains, as the main feature, a list of the Physicians and Surgeons in the United States arranged alphabetically by states and cities or towns, showing school practiced, date and college of graduation and postoffice address, with population and location of each place. In addition to this are departments prepared with great care, and giving a mass of useful miscellaneous information pertaining to the profession at large, such as the various Medical Societies, existing and extinct Medical Colleges; Hospitals, Asylums and other Medical Institutions; Laws relating to the practice of medicine in each state; National Medical Associations; Medical Journals; Boards of Health, etc., etc.—in fact, no other publication in the United States occupies the place held by this national work, and we are positive that in no other publication will be found such an amount of valuable general information for the practitioner, arranged in so convenient a manner for ready reference.



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Medical Practice in Armenia.—An Armenian lady physician, now sojourning in Vienna, is reported in one of the London papers as having delivered a lecture showing the dark past and better prospects of the women of her land, in respect of medical care and a higher education. In the course of her lecture, she stated that she would have to deny Professor Albert's assertion as to the inferiority of women, as far as the Armenians are concerned. She said when the Armenian male looks around him he can certainly not say that all he sees is man's handiwork, for it is rather woman's. The products of industry, which have made the country famous—silks and wools, carpets and embroideries—are all made by women in Armenia, from the treatment of the raw material and the designs to the final process of manufacture. No male Armenian claims to have had a part in this work, nor does he dream of looking down upon woman as an inferior being. There is not a single proverb in all the dialects of the country that ridicules woman, although there are innumerable ones in her praise. Armenians say: "Let women learn all they can; they will be so much more useful, and we will marry them all the more willingly." She mentioned that women were now to be admitted to the St. Petersburg University, and predicted great results from this grand opportunity, as hundreds of families whose girls have passed through the grammar schools and seminaries in Tiflis, declared they should send them to study medicine, and so obtain relief from the terrible dearth of doctors in Armenia.— Journal of American Medical Association.

The Retirement of Dr. Geo. M. Gould from the editorship of the Medical News is a great loss to medical journalism in America. His sound judgment, impartial criticism, honesty of purpose and scholarly attainments have won for him a reputation which has been well earned and is well deserved. In company with his host of friends, we tender to him our best wishes for his future successes. - Medical Record.

How to be a Centenarian.—Sir Benjamin Ward Richardson still gives it as his fixed opinion that every man and every woman should attain the age of one hundred. According to Sir Benjamin, the would-be centenarian must have a blond complexion, with hazel eves, light-brown hair and reddish cheeks. He must never smoke nor drink, must eat very little meat, and he must not work by artificial light. —Medical Record.

Piercing Ears.—The danger of blood-poisoning in piercing the ear is not to be ignored because the operation is sup-





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posedly not a dangerous one. There is nothing right about this home surgery. The cleanest person, when it comes to a surgical operation, is, without proper scientific laving, medically unclean. A woman takes a needle, any needle, and threads it with any thread. This thread may have been in her work-basket months and months, lying next to other spools of all colors. She would not think of washing her own hands or washing the ear to be pierced. A cork is taken out of some bottle, any bottle, without thought as to what is in the bottle or how long the cork has been exposed to the dust. This cork is placed under the lobe of the ear for the needle to strike against when it comes through. Inflammation and suppuration naturally result.

Ophthalmic Troubles in Bicyclists.—In the December number of the Medical Chronicle there is an abstract of an article on this subject by M. de Lavigerie, published in the Recueil d'ophthalmologie, No. 4, 1895, in which the following case is related:

Mr. B., a professional cyclist, was engaged on the 2d of February in a twenty-four-hours' track race at the Velodrome d'hiver, at five o'clock in the afternoon of an intensely cold day. He mounted his machine "feeling perfectly fit and in the best of form." During the night the thermometer fell to 10° or 12° in still air. Mr. B., however, had the services of relays of pacemakers on tandems, who, traveling at a high speed in front of him, made a vacuum in the air behind them, producing a rapid current of air so strong as to carry round the track in the wake of the machines pieces of crumpled paper and other light articles. Under these conditions, then, and worked up to a high state of nervous tension in his attempt to break the record, the patient passed the night. After three-quarters of an hour's racing he began to complain of seeing colored halos round the electric lights; disregarding this, he still kept on, though his vision gradually became more indistinct. By the morning his acuteness of vision was so much affected that he could hardly tell whether the incandescent lamps were burning or not, and by half-past ten o'clock he was observed to steer wildly and come in collision with persons on the track. On inquiry, he announced that he was quite blind, and was immediately made to dismount, having ridden for eighteen hours and covered the distance of five hundred and thirty-six kilometres. On an examination of his eyes, the lashes and conjunctival culs-de-sac were found covered with dust. There was very little circum-corneal injection, but both corneæ were hazy and infiltrated, the zone of infiltration corresponding to the palpebral opening, and having a fan-



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shaped expansion downward. There was no exfoliation of the epithelium, but the infiltration appeared to be situated deep in the corneæ. The peripheral visual field and color perception were normal, but direct vision was reduced to distinguishing fingers at twelve feet. A warm boric-acid lotion to the eyes and quiet rest in bed for several hours, as he was suffering greatly from cold and fatigue, promptly improved his condition, and in forty-eight hours his corneæ had become transparent once more, and vision had become fully restored. The interesting features in this case, says the writer, are the development of symmetrical trophical lesions on both corneæ in a probably over-trained, neurotic individual, subjected to intense muscular fatigue in the presence of a very low temperature, and the rapid recovery from the corneal opacity, which may be said to have lasted only a few hours before it began to clear up.—New York Medical Journal.

Medical Experts in Courts of Law. The medical expert on the witness stand does not inspire that respect which his position should command. It lies in the very nature of things that the expert witnesses on opposite sides of a case should differ, from the very fact that the same case is presented to them from different standpoints. And in no class is this more marked than in criminal cases in which the plea of insanity is made. The hypothetical case so dear to the lawyer's heart is simply a delusion and a snare in which many an honest and capable physician has been entrapped. The result of this is that the lawyers do their utmost to break down testimony, the most varying opinions are given, and the newspapers, always on the alert for such items, ridicule the experts and take good care to exhibit all possible contradictions and inconsistencies which may arise. This certainly has a tendency to create anything but a good opinion on the public at large. And this opinion is very apt to be impressed upon a jury which becomes so much entangled in a mass of confused testimony that it becomes entirely incapable of passing any judgment of value upon the testimony which may be brought forward. Besides, it may be said that it is perhaps asking too much of a lay jury to give any opinion upon such abstruse subjects as often serve to puzzle experts.

It has been stated on more than one occasion, by unthinking persons, it is true, that the side with the most money could command the services of the best experts. The question of fees is one which is constantly recurring when experts are summoned to testify in cases of any importance, and where this does not enter into the question as a prominent factor we have but too often the exhibition of personal acrimony between physicians. An unprejudiced





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observer would certainly suppose that there could be no possible question in regard to a case of malpractice, for instance. Yet, in any action for damages based upon such an accusation, medical witnesses will be found testifying on both sides. The friend of the defendant will find excuses or give positive opinions in his favor, whereas those who are inimical to him will find an infinitude of technical errors and leave judge and jury in doubt as to whether it is ever a safe procedure to entrust one's life in the hands of any physician or surgeon. It will be confessed that such a state of affairs is anything but pleasant, viewed from either a legal

or a medical standpoint.

With a view of correcting this condition as well as to stop various abuses which the present system of having medical experts testify has led to, a number of prominent medical men of New York have resolved to offer a plan which, if carried out, will most probably be the best that could be suggested. The intention is to introduce a bill before the legislature to carry the method into effect, and it will go far towards simplifying legal procedures, more especially in criminal cases. Briefly stated, the plan is to have a permanent board of medical experts, to be appointed by the governor. The appointments are to be based upon merit and professional attainments only, irrespective of politics or religion. This board should be sufficiently large to permit of not less than three out of the number to act in the capacity of advisers to the court. If, for instance, the plea of insanity be entered in a criminal case, the board of experts is to examine the defendant and consult with one another and decide upon the question of sanity. Should there be a disagreement among three or five experts, then a meeting of the entire board must take place and render a final decision.

In the same manner damage cases, malpractice cases, and all others in which medical expert advice or opinion is required, would be handled, and we would find as a result a greater expedition in the adjustment of cases as well as a great saving to both the State and the parties directly interested. The board would be strictly non-partisan and unprejudiced, and, not being hampered by lawyers' quibbles or hypothetical cases, would come to conclusions based upon a scientific foundation. We cannot see how any lover of justice could object to such a plan, and we hope to see a law enacted which will fulfill the program which has been manped out by some of the leading men of the medical profession of New York. Should New York adopt such a law, its application will be closely watched throughout the Union, and in case of its success we may hope to see it adopted by all the States .- St. Louis Medical and Surgical Journal.



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Novel Treatment for Uterine Inertia.—Dr. Cowen contributes to the Medical Age an article relating his accidental discovery that a glycerine suppository introduced into the rectum of a woman in labor, to procure a movement of the bowels, provoked an increase of the labor pains. The pains had been weak and coming only at long intervals; but with the suppository in the rectum, became strong and frequent, and speedily terminated the second stage. The doctor subsequently experimented in twelve other cases of uterine inertia with similar results, and now would not think his obstetric bag properly furnished without glycerine suppositories.





PACHYDERMIA LARYNGIS. REPORT OF TWO CASES.

A. H. MARVIN, M. D.

Lecturer on Rhinology, Medical Department University of Wooster.

Although first described in 1881 by Hünermann, general interest in this disease was not excited among the medical profession until 1887, when Virchow² in his now classical paper discussed the whole subject and dwelt on the difficulty of diagnosis between pachydermia and beginning carcinoma. This was a propos of the sickness of the Crown Prince Friedrich. From this time until 1890 only one article appeared on the subject; this was by B. Fraenkel, and was published in 1889. In 1890, however, at least five reports were published, embracing records of about forty cases. From that time until the present, fifteen more have appeared, those by McBride, 17 Chiari²⁴ and B. Fraenkel²⁸ being probably the most important.

Pachydermia laryngis is, clinically speaking, an epithelial thickening with a tendency toward tumor formation. The thickening is usually most marked upon the vocal cords posteriorly, in the region of the vocal processes, but often occurs in the inter-arytenoid fold. The anterior portion of the vocal cords may be at times affected, and in one case





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reported by Flatau¹⁸ the epiglottis was the seat of the affection.

To follow Virchow's classical account, "one sees on the vocal cords posteriorly, especially at the junction of the vocal processes with the arytenoid cartilages, and usually symmetrical on the two sides, an oval swelling, often 5 to 8 mm. long, and 3 to 4 mm. wide, directed as a rule, obliquely downward and forward, so that the anterior extremity lies beneath the vocal cord. In the middle of the swelling is a longitudinal furrow or depression of but slight depth." Virchow attributes the formation of this furrow to the intimate connection with the cartilage at this point. Fraenkel's explanation, however, that the depression is caused by the pressure of the growth of the opposite side, seems more plausible, especially as the opposite growth fits into the depression, thus allowing more or less complete closure of the glottis. In fact, this is one of the diagnostic features of the disease. To continue with Virchow's description: "In the interarytenoid fold one sees at times thick out-growths and folds covered largely with a white epidermoid coat. Sometimes there is a tendency to fissure formation, so that cracks and fissures, the so-called rhagades, form, leading down into the connective tissue below. In such cases hæmorrhage may occur, and the appearance resemble that of beginning carcinoma." The white epidermoid coat spoken of in connection with the inter-arytenoid tumors also covers the growths on the vocal cords and is very characteristic. may be stripped off and is found to consist of agglutinated epithelial scales.

The ætiology of pachydermia is obscure. Most authors consider as causes, excessive and harsh use of the voice, over-use of tobacco, alcohol, working in dust and irritating vapors, and long standing laryngeal catarrh. Rosenberg mentions a case following influenza laryngitis.

While one or more of these conditions are present in a majority of cases of pachydermia, yet pachydermia follows in an exceedingly small per cent. of cases presenting the same conditions. It is equally certain that pachydermia may arise in cases not subjected to any of the causes mentioned. Syphilis and tuberculosis are present in a certain



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per cent. of cases, the latter in probably as much as 8 to 10%, but it is not likely that either are more than co-incidental. As to the reason that pachydermia affects so limited a part of the larynx, Virchow's explanation is doubtless the best so far given, that these parts are covered with a direct continuation of the same kind of epithelium as the mouth and lips and have a natural tendency to become epidermoid; they possess an "epidermoid habit."

As to sex, males are more frequently affected, all of Sommerbrodt's 18 cases being males, and probably three-fourths of all other cases reported were likewise males. The disease is noticed most frequently between the ages of 20 and 30 years, although cases have been reported as young as 10 years, and as old as 60.

The clinical symptoms differ according to the size and location of the growths present. The voice varies from slight hoarseness to complete aphonia. Pain may be present, especially when rhagades have formed, but usually there is only a feeling of discomfort or a sensation of "something in the throat." When large masses have formed, there may be great dyspnæa, but it is astonishing how large tumors may be present without causing the patient discomfort. When, however, the latter condition is present, associated with weakness of the abductors, the patient may require immediate tracheotomy.

The diagnosis is not difficult in well marked cases, but in the early stages it is often impossible to differentiate it from chronic hypertrophic laryngitis. The diagnosis, where possible, will depend upon the symmetrical swellings, greyish white color and hardness of pachydermia, while, if there is overlapping of the growths, and a furrowing of the growth upon one side, the diagnosis is clear. When the growth is in the inter-arytenoid fold, the question of tuberculosis may arise. Here the diagnosis must depend upon the hardness, the white epithelial coating, and the absence of the pyriform swellings of the ary-epiglottic folds, and usual absence of ulceration.

Occasionally the tumors, whether upon the cords or in the posterior commissure, become fissured and as hæmorrhages occur, the question of their being carcinomatous may



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arise. In such cases recourse must be had to the microscope, and even then great judgment is necessary in making the diagnosis.

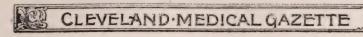
When examined microscopically, a striking appearance is presented. The papillæ which exist normally on the cords and in the inter-arytenoid space, are greatly hypertrophied. Upon the surface lies a thick stratum of horny squamous cells which lower down become polygonal or cylindrical. The epithelium dips down into the connective tissue and sends branches in various directions which, when cut transversely, bear considerable of resemblance to the nests of an epithelioma. The lower boundary of the epithelium, however, seems to be definitely limited, and we do not find that tendency to invade the neighboring tissues which exists in carcinoma. The theory of Klebs that pachydermia may develop into carcinoma by the gradual growth of the proliferating epithelium into the blood and lymph paths, is not accepted by later writers. The frequent co-incidence and pathological similarity of pachydermia and leukoplakia oris is of much interest in this connection, for it is wellknown that the latter disease may develop into epithelioma.

This fact alone renders the prognosis somewhat doubtful, although as far as I am aware, no case of pachydermia has been observed to pass into cancer.

The most favorable treatment is probably iodiode of potash internally and nitrate of silver locally. McBride reports good results from simple spraying with salt-water. As a rule, however, the cases are obstinate, and the growths increase gradually in size. When so large as to interfere with respiration, they should be removed, although they usually recur.

Case I, Nov. 17, 1894.—David F., aet. 14, newsboy, an Austrian Jew. Has lived several years in this country. Complained of entire loss of voice for 24 hours and previous history of hoarseness extending over two years. Patient's family history good; no evidences of tuberculosis or syphilis, general health robust. Habitually a mouth-breather. Examination showed acute laryngitis with considerable swelling of mucosa. Adenoids of naso-pharynx and slight degree of hypertrophic rhinitis.

The patient was placed upon appropriate treatment for his



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laryngitis and directed to return in two days. On his return the laryngitis had disappeared and the following points could be observed.

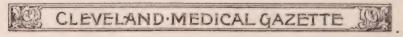
Mucous membrane of larynx slightly reddened and somewhat swollen from the recent laryngitis. The cords were greyish white in color and greatly thickened in their posterior two-thirds where on each side there was a white irregular swelling. In the inter-arytenoid fold was a growth the size of a pea, white, sessile, and hard to the touch, although thrown somewhat into folds on phonation. There was also some weakness of adduction, though this was likely more apparent than real. Patient breathed with rough, noisy respiration and said he had often had attacks of dyspnæa. Whenever he caught cold, he lost his voice entirely.



A diagnosis was made of pachydermia and as the interarytenoid growth caused dyspnœa, it was decided to remove it. After two attempts with an ordinary polypus forceps, it was finally removed by the vertically cutting Krause



Case No. I. (Zeiss obj. A., oc. 2.)



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double curette. The tumor was hard, white and shining, resembling cartilage. On section it presented the characteristic features of pachydermia laryngis. The gross and microscopic appearances are shown in the accompanying cuts. The especial points to be noticed are the size of the papillæ, the definite outline of the epithelium, although the cells do not show in the cut, and the transverse section of a branching prolongation of the epithelium which bears some resemblance to the nest of an epithelioma.

In this case we seem to have had nearly all the elements favorable to the development of such a growth, namely: Mouth-breathing, excessive and harsh use of voice, and exposure to all the inclemencies of our variable

climate.

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Case II, Aug. 20, 1895.—Miss R. H., aet. 22, Jewess, resident of New York city, but born in Poland, saleswoman by trade.

Hoarse for about a year-worse at present time.

Tickling, scratching sensations in throat.

Examination showed a white swelling on each vocal cord at the junction of the anterior and middle thirds. There was also a faint groove upon the one side, as shown in the cut. On phonation the growths overlapped slightly, but there was too great weakness of adduction to allow perfect approximation, probably due to a slight laryngitis which was present.



Case No. II.

The treatment followed was spraying with Dobell's solution, local application of zinc chlorid 2% and iodide of potash in small doses internally. After a few days' treatment there was some improvement, but the hoarseness remained. The case soon after disappeared.

Cases of pachydermia affecting the anterior portions of the cords are rare, but one has been reported by P. McBride,

in an interesting article before mentioned.17

The question of diagnosis in the latter case lies between hypertrophic laryngitis and pachydermia and was decided simply on account of the whiteness, symmetry and groove upon the one side.



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106 EUCLID AVENUE.

HOT WATER IN THE TREATMENT OF AURAL AND PHARYNGEAL INFLAMMATIONS.*

C. W. SMITH, M. D., CLEVELAND, O.

Mr. President and Gentlemen of the Society:—Please allow me to preface my subject by saying that it is deemed to be a great honor, privilege and responsibility to present a paper before you thus early in the infancy of what we hope may become a powerful, most useful and instructive organization. In order to make the most of such golden hours as we may spend together, it is believed that more than an ordinary responsibility should be felt and duly responded to by those preparing subjects for your consideration and discussion. It is, therefore, with feelings of some trepidation that I have consented to occupy this time.

Hot water is already in such general use as a remedial agent for aural inflammations, that one might foretell an hour wasted in its further promotion, but a discussion of a new form for its application and of its proper place in combatting inflammations of the ear, nose and throat is believed may well occupy at least a portion of the evening.

Your time shall not be wasted in listening to a long dissertation upon any of the points I wish to present, but on the other hand, let me make a few suggestions and short reports of cases and leave the elaboration of this and other forms of treatment to you.

Let us consider for a moment, and in a general way, the action of hot water upon the bodily tissues. It is, of course, the greatest purifier from general filth, which it removes by a solvent and mechanical action. Heat greatly increases the solvent action of water and adds powerfully to its disinfecting proportions. When applied to inflamed surfaces, water at a temperature of 110 to 160 degrees Fahrenheit has, at first, a slightly irritating or stimulating effect, but if continued in contact with the tissues, this action is soon followed by a decided anodyne or soothing effect. Tenderness of the surface is abated, a greater tolerance to pressure is secured and pain is eliminated or greatly modified. Deep congestion and swelling give way to anæmia and shriveled textures, and a condition far more normal and healthful is

^{*}Read before the Throat, Ear and Eye Section of the Cuyahoga County Medical Society, December 6th, 1895.



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almost immediately established. Perhaps in no way can active inflammatory action be more surely and safely governed and brought to a speedy end than by the use of this commonest of all natural remedies. Provided, however, that its direct application to the part is possible and practicable.

In his most estimable text-book on the subject of gynæcology, Doctor Thomas A. Emmet, of New York, sets forth at much length the marvelous good effects to be obtained by the continued use of hot water in the treatment of inflamed mucous surfaces and congested organs. Hosts of his followers have imitated his example and are getting equally as good results as he did. Applying the lessons learned from this worthy source, I have always been free in the use of hot water in the treatment of acute inflammation wherever found, if practical to apply it direct to the suffering part.

In the fall of 1892 I began the study of the possibilities of applying hot water in the treatment of pharyngeal inflammations. I purchased naso-pharyngeal syringes, and considered the utility of steam atomizers, but nothing in the market appealed to my judgment for the prolonged application of hot water to the tonsils, faucial pillars and retropharyngeal walls. I therefore made a few experiments with cotton tampons attached to strong and stiff throat applicators and learned that the results obtainable in this way were most flattering and satisfactory.

Small throat swabs have always been used, more or less frequently, for cleansing throats, but so far as I have known, no systematic use of hot water, applied in the manner above indicated, has hitherto been advocated for the long continued application of moist heat in the buccal pharynx.

For this purpose I use a very strong cotton-carrier or throat applicator, roughened near the point, upon which is to be placed a layer of surgeon's absorbent cotton about the size of the patient's hand. One end of this layer is drawn out to a point and is wound tightly on the tip of the carrier. The cotton is then wound more loosely and is fashioned into a ball or large knob the size of a small hen egg, and finally the last end of the cotton is spun around the rod below the ball and is pushed upward. In this way any possible danger



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of dropping the cotton into the throat is averted by secure attachment.

The cotton ball is now dipped in water at a temperature of 150 degrees Fahrenheit, and after wiping it upon the side of the dish to remove all flowing water, the heated cotton is plunged into the pharynx where it is allowed to remain from fifteen to thirty seconds, when it is re-dipped in the water for renewed heat and repetition of the process. The temperature of the water in the bowl must be sustained, as it rapidly falls unless maintained by the heat of an alcohol lamp or by replenishing it with more of the boiling fluid.

On introducing the tampon into the throat, it is first allowed to rest upon the tonsils and pillars of the fauces, and later, as tolerance is gained it may be placed upon the posterior pharyngeal wall, if necessary, without inconvenience to most patients. Pressing it upwards, the heat may be brought into contact with much of the naso-pharynx, and, but for the soft palate, is brought into contact with the mouths of the Eustachian tubes.

The blood supply of the pharynx, Eustachian tubes and middle ear is thus affected directly. The applications should be repeated in some cases several times daily, while in others a much less frequent use will suffice.

This method, when used in conjunction with external applications to the ear, has been found a most valuable adjunct in the treatment of middle ear inflammations, especially as such inflammations originate most frequently by extension from the naso-pharynx, and are in this way immediately attacked at the fountain head. As heat adds materially to the forcible action of many local remedies, and especially to that of all microbicides and disinfectants, I generally use Seiler's tablets in the water, or some other agent better suited to the present condition. About a year ago, while on a trip through the Eastern States, I found the hot nasal douche being used in the throat section of the Out Patient Department of Boston City Hospital, (then in charge of Doctor Leland), for the relief of certain acute inflammations in the nose, and naso-pharynx. My method was there explained, and, as I have learned, has been experimented with at the hospital, but with what success I do not know.



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One advantage in using the tampon is that the necessary high temperature is better borne by the throat than by the skin, and can be used without involving it or other more sensitive parts.

Case I. Mrs. F., professional nurse, consulted me in February, 1895, on account of a distracting pain in the ear, from which she had walked the floor all night, until the hour of 5 A. M., when she called upon me for relief. Mrs. F. was then stopping in the apartment hotel where I reside, and seeing nothing better at hand for immediate use, I gave her a tampon of cotton on a throat applicator, explained its use to her briefly and asked her to try it, and report soon if immediate results were not forthcoming.

At 7:30 A. M.. the apparatus was returned with the statement that it worked like magic and gave almost instant relief. As the patient left town for Columbus on one of the morning trains, she was advised to consult her physician there for diagnosis of the underlying conditions and further

treatment.

Case II. Mr. A. B., Sergeant of Police, was referred to me for treatment in May, 1895. Had recently been promoted to present position in the Police Department, where the use of a telephone was indispensable. His hearing was found to be so much impaired that much to his astonishment and dismay he could not make a satisfactory use of the instruments.

On examination, I found retracted and inflamed drum membranes, a deflected nasal septum with a spur of bone reaching out upon the posterior extremity of the inferior turbinated body, together with resulting congestion, extension of inflammation to the naso-pharynx and closing of the Eustachian orifices.

Hot water was used in the throat by the operator at the first sitting, and was continued for at least thirty minutes. The tympanic cavities were inflated with air, and the acute symptoms of inflammation in the middle ear were markedly lessened. Acute hearing was almost immediately restored, and by frequent repetition of the hot water treatment, the patient was enabled to maintain his position until the spur was disposed of and other permanent relief was afforded.

Case III. Mrs. P. Called upon me during the past winter to attend her son G. P., age 13, who had been suffering for several days from an attack of acute tonsilitis. First visit was made on the evening of March 23. Patient restless and aching with general bodily pains, temperature 101 degrees; tonsils much inflamed, swollen and covered with

a viscid yellow exudate.





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Sponged the throat for thirty minutes with hot water in which antiseptic tablets were dissolved, and prescribed aconite and belladonna in small doses frequently repeated. Next morning patient met me at the door with the exclamation "I am all well!" and sure enough, the improvement was very marked. Temperature normal, and throat only slightly swollen and somewhat irritable.

Case IV. Miss J. F., age 20, called me to her residence on the evening of November 1, 1895. Found her suffering from acute tonsilitis. Temperature $101\frac{1}{2}$, pulse 112; tonsils badly swollen and inflamed, patient unable to swallow without pain; complained of pains in the head and back, aching of the extremities, and a feeling of intense weariness.

Sponged throat with hot water, giving much immediate relief, ordered a laxative, a solution of aconite and belladonna and a dovers powder, gave instructions to nurse to repeat the sponging every two or three hours.

Next morning, November 2, patient much better, temperature 99, pulse 80, throat less swollen and irritable. Patient can swallow without much difficulty and bodily pains have mostly disappeared. Complete recovery followed in two or three days.

Case V. Miss A., professional singer, consulted me Friday, Nov. 1, on account of acute pharyngitis and peritonsilar inflammation, together with a slight laryngitis.

"Must sing in church on Sunday and on Tuesday has an

engagement for an important concert."

Ordered sponge bath for throat every two hours with albolene spray, and quinine, salicylate of soda and a laxative for internal administration.

On Sunday, the song service was attended, but voice was favored. On Tuesday, the patient was complimented for being in unusually good voice, although she states that such attacks have often unfitted her for singing for two or three weeks.

Case VI. On the 25th of March, 1895, was called to

the bedside of Mrs. V. W., age 65 years.

Found patient suffering from dyspnæa and feelings of suffocation. Voice very husky. Temperature normal, pulse 120. Complained of chilly sensations and some distress in the region of the heart, symptoms growing rapidly worse.

Examination revealed a highly congested pharynx with

some ædema of the glottis.

Local treatment was at once begun with hot water in the throat and laryngeal applications of cocaine, and steaming inhalations of menthol with tincture of benzoin were fre-





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quently repeated. It is believed that the hot water acted as a valuable adjunct in controlling the inflammation which appeared to have originated in the pharynx. Recovery was rather slow, but sure.

In closing, I wish to remark that it is not my intention to advocate hot water to lead all other remedies for acute inflammations of the throat, but to show that it deserves a prominent place among other valuable remedies now in use.

122 Euclid Avenue.

PRURITUS OF THE GENITALS.*

BY HUNTER ROBB, M. D.

Professor of Gynæcology, Western Reserve University, Cleveland, O.

You may remember that Plato in the Phaedo speaks of "pure" pleasures and "mixed" pleasures. The former were such as were not associated with pain at all, while the latter presupposed some inconvenience. In the category of "mixed pleasures," besides eating and drinking, which are preceded respectively by hunger and thirst, and many others, he puts scratching. Scratching presupposes the pain of itching, although scratching in itself may be delightful. I am not here to lecture on Plato or to improve upon him, but I want to say only that the scratching belonging to *Pruritus Vulvæ* is not a mixed pleasure at all, but an *unmixed evil*.

Pruritus of the genitals is such an annoying condition and therefore of such importance both to physician and patient that a careful study of it cannot be counted as a waste of time.

Pruritus of the vulvæ is not a disease per se, but a symptom which may accompany several quite different affections. It may come from diseases of the vulva and vagina, the uterus, the uterine appendages, the urethra, the bladder, the kidneys, the rectum, or from certain systemic diseases. In many cases the itching is due to local anatomical changes. An erythema of the vestibule, together with an intense itching may be caused by acrid discharges coming from the uterus or vagina, or by the irritation from diabetic urine; or again, in patients whose skin is naturally

*Read before The Cleveland Society of Medical Sciences, May, 1895.



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irritable it may occur as a result of incontinence, though the urine may be normal.

It is to be insisted, however, that pruritus may occur in cases of inflammation of the uterus or vagina without the presence of any irritating discharge.

Not infrequently pruritus is the first sign of an incipient carcinoma of the vulva. In other cases again, it may be due to obstructed and enlarged sebaceous follicles on the inner surface of the vestibule; at other times again at the place where the itching is most intense, scars will be found either in or near the vestibule. Pruritus sometimes occurs in pregnancy.

Parasites, more especially the pediculus pubis if neglected, may give rise to this annoying symptom, and sometimes especially in children, the presence of worms in the vagina, which have come from the rectum will account for the patient's distress.

Masturbation may either precede as a cause, or follow as an effect of pruritus. In many cases, a vicious circle is formed, and the masturbation which has been caused by the pruritus in turn increases the latter, besides leading to other severe nervous symptoms.

The systemic diseases by which pruritus is sometimes a symptom, are diabetes, lithæmia, and various neuroses.

Pruritus sometimes occurs at the menstrual period, but much more frequently just about the time of the menopause, and in the latter case may be due to atrophic changes which have taken place in the vulva, and to the increased nervous irritability of the patient.

Symptoms.—The cases vary much in intensity. Sometimes a mild burning is complained of; sometimes a tickling, while at other times, in the more severe cases the patient complains of a burning and itching which is worse than that encountered in the severe eczematous affections elsewhere in the body.

In these cases, transient relief is found only by scratching, and the patient often secludes herself in order that she may obtain this comfort, unsatisfactory as it is. At times, the condition amounts to one of real agony, and so much does it affect the nervous system that not in-

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frequently the woman falls into a condition of profound melancholia.

Treatment.—In treating a case of pruritus, the main thing is to discover the cause. But even when this has been found, we are sometimes powerless to relieve the condition. Suppose that we find an endometritis with purulent leucorrhæa, this should be at once attended to, since with its removal, the pruritus may also disappear. If we have to deal with a neoplasm, with an acne, or more especially with cicatrices in the vulva, some cutting operation is more likely to bring relief than any other procedure.

Unfortunately the patient hardly ever comes to us at the very beginning, and it is often impossible to be certain how much of the excoriation is due to the underlying cause, and how much is due to a dermatitis caused by the frantic efforts of the patient who has sought some, although only temporary, relief by scratching.

The removal of acne pustules covering the mucous membrane of the vestibule was followed in several cases, reported by Küstner, by the disappearance of the most obstinate pruritus.

Frederick and Wilshire hold that the disease generally has a parasitic origin and would treat it with the various parasiticides.

When a woman comes to us complaining of pruritus, it may at first be allowable to give some one of the many washes so highly recommended for this condition, but as a rule the affection will not be cured in this way, and if the symptoms are not at once alleviated, an examination should always be insisted upon.

We shall examine then (1) the external genitals for skin eruptions. In doing this, it will be well to obtain scrapings and examine them with the microscope for parasites. (2) We next examine the cervix for signs of leucorrhæa and inform ourselves of the general condition of the uterus and appendages. (3) An examination should be made per rectum; and (4) the chemical and microscopical examination of the urine should never be omitted.

The presence of enlarged sebaceous glands or any signs of malignant disease should be carefully looked for. The



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urine as we have said should be examined more particularly for albumen and sugar, and also microscopically. Hemorrhoids or fissures of the anus should be treated and the vulva should be kept free from all irritating discharges. The general health of the patient should never be forgotten.

When the vulva is dry too frequent bathing should be avoided and the surface should be kept moist, being treated not with evaporating lotions, but with ointments. Suppositories containing codeia or opium and hyoscyamus at night will often give the patient relief, since all the symptoms are aggravated when the patient gets warm in bed.

The name of the various external applications for pruritus is legion. You will find (and this is not an original remark) that whenever you have a long list of infallible remedies for any one morbid condition, that some of them or perhaps all of them, will disappoint you nine times out of ten if not ninety-nine times out of a hundred.

Zweifel used to say in his lectures that nothing was any good except a two per cent. solution of nitrate of silver; this has sometimes disappointed me. Ointments containing from two to ten per cent. of salicylic acid are sometimes effective. An application of a mixture of a drachm of chloroform to an ounce of olive oil will occasionally do some good, and sometimes none at all. A two per cent. solution of carbolic acid, the ordinary lead and opium lotion, a solution of the acetate of morphia (two grains to the ounce) often give relief for a time. But when the exciting cause cannot be removed, the treatment is of necessity empirical and too often unsatisfactory.

The most popular internal remedies are bromide of potassium, especially at night, and some form of belladonna, both of these drugs tending to decrease irritation of the peripheral nerves.

Some time ago, Küstner and Schröder began to try excision of the affected area, and in obstinate cases this has in their hands often proved successful.

I do not think that when we have tried everything else we should shrink from a cutting operation, because the bad effects of the disease upon the patient and the agony which she goes through, justifies the employment of heroic measures.



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ROBB: Pruritus of the Genitals.

In his book published in 1893, Kustner gives only three instances all of which, however, were ultimately successful.

In the first case, the patient had an endometritis which was cured without however, any alleviation of the pruritus. Kustner then removed a portion of the mucous membrane, which was crowded with small retention cysts, and for three years afterwards, at any rate, the patient was free from pruritus, although she still suffered to a certain extent from endometritis. Another similar operation which he quotes was quite as successful.

In a third case in which the patient complained of pruritus, the vaginal portion of the cervix was found much enlarged. Kustner amputated it and found that the enlargement was due to retention cysts there being no signs of carcinoma.

After the operation, the pruritus continued to be as severe as before. A further examination brought to light an old defect of the perineum due to a previous labor. A perineorrhaphy was undertaken, the whitish part of the mucous membrane which had been the seat of the irritation, was removed and the patient was cured.

The following case, from Dr. Kelly's clinic at the Johns Hopkins Hospital, is interesting in this connection.

Mrs. A. E., married, aged 57, was admitted to the Gynæcological Ward, Oct. 12, 1894, complaining of pain and itching in the vagina. She had born no children but had had one miscarriage at the age of thirty-two. Menopause between fifty-five and fifty-six. The family and personal history contained nothing of importance. The present illness began twenty years ago. At periods suffered from itching and a burning which lasted one or two days, beginning the day before the appearance of the flow. For about three years, the suffering has been constant; little blebs and blisters would form in the vagina and on the vulva; when these would break the resulting raw surface hardly ever healed and would exude a quantity of pus; the eruption does not extend to the thighs or loins. The general condition of the patient on admission was good. The urine was negative. To relieve the pruritus, the excision of the diseased area including the mucous surface of the labia



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majora, the clitoris and labia minora was decided upon. The area having been outlined with a knife, the whole thickness of the mucosa was removed; the removal was from above downwards, the flap being turned down and gentle traction being made upon it as it was dissected off. The dissection reached to within one centimetre of the urethra and encircled the upper two-thirds of the outlet. The part removed consisted of thick, irregular white patches; on the upper part were a few superficial ulcers, and below the surface was thin, glazed and reddish. The patient made a satisfactory recovery, and the symptoms of which she complained have disappeared.

MALPRACTICE SUITS.

BY H. C. BRAINERD, M. S., M. D.

The Cleveland Medical Society, November 23d, 1895.

Threatened suits for medical or surgical malpractice, like cases of inguinal hernia, are of much more frequent occurrence than is generally supposed.

As surgical examinations for military duty in times of war reveals that one in ten of men of draftable age are so afflicted, I venture to affirm that an investigation would disclose that even a larger ratio of these reputable physicians and surgeons here present, and who have, by industry and economy, accumulated a moderate competency, could relate an experience of one or more threatened malpractice suits. One surgeon of this city, whose name would be well known to most of you, told me he had been so honored eight times. In fact, until the experience had become monotonous.

If the malady is new to you. If you are as yet without experience, its initial symptom may be something like this: Some bright day there will visit you at your office a gentleman who will introduce himself by presenting the card of a, to you, unknown legal firm, his manner will be insinuating and suave, and his smile childlike and bland. With a depreciative and confidential air he will remark that Mr. So and So has insisted on placing a little matter of legal business in his hands relative to the professional treatment you did,



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or did not, give to a certain case, etc. That his client insisted that he peremptorily bring suit against you, etc., but he thought it but generous courtesy before giving the matter publicity (accent on the publicity) to call on you and get your statement of the matter, etc., etc.

Now while we all know that the initial attack of many severe, malignant disorders is apt to produce considerable disturbance, sometimes amounting to shock, yet it will be very unwise to permit yourself to exhibit the fact that you are either scared or angry.

Although the case in issue may have been, as is frequently the fact, a charity case, and in its treatment your conscience as to what you did may be perfectly clear, yet do not, in the excitement of the moment, precipitately give away your position and defence. That is precisely what that lawyer wants; he will know then where you are, and with just what kind of ammunition to load his gun that he may bring you down.

For the chances are that that seemingly conciliatory lawyer is strictly on the make. He is not flush with clients, and is working up a case on the principle that everything is fish that comes to his net, his present anxiety is to discover how and where to cast his net.

The almost universal basis on which such cases are taken is on the divide, nothing got nothing made, and he is after blood, either venous or arterial. In fact, he would rather scare his man to death than shoot him.

Before visiting you, that lawyer had moused through the tax records, and like evidences, and possessed himself of a definite knowledge of about how many hard-earned dollars you have been able to accumulate and just where you have put them.

Therefore, don't talk too much with that lawyer, it will be to your hurt if you do. There is an old adage, which says: "Fight dog with dog."

And now we have reached the first question in our presentation. What, in this case, is the physician's duty to himself? If you believe you owe that lawyer's client something; if you feel that his case is just and yourself a criminal, guilty of malpractice, you will hasten to settle, and



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that on their terms, which terms, rest assured, will simply be the full measure of your resources.

If you are conscience clear in the matter, but have more sensitiveness than self-respect, and would rather pay hush money—rather suffer blackmail than suffer the undesirable publicity of a case in law, you will have ample opportunity to do so. It is, in fact, just what they want and largely count on.

It is just their promptness to settle which makes doctors a rich field of plunder; in fact, but a very small per cent. of threatened suits ever reach, or were ever intended to reach a trial. They are expected to be either settled or withdrawn.

We affirm that every doctor who pays hush money compromises his profession, emboldens the repetition of the process upon some one else, and stimulates the pernicious and belittling custom of placing the title of property in the name of one's wife or friend. In fact, it ought to be a matter of ethics that no physician is justified in paying money to hush up an unjust malpractice case. There is the heroism of final victory and peace in the battle cry of "millions for defense, but not one cent for tribute."

And now we come to the second question in our presentation. What is the duty of professional brethren to each other in malpractice cases?

There is a broad discrimination to be made between just and unjust suits. We are not including in this discussion those cases where it is apparent some one practicing medicine has, either through cupidity or gross ignorance, done overt and positive wrong. It is not sought to prevent just prosecution, but to discountenance unjust persecution.

In this matter there ought to be, for the mutual good, a unity of interest and action. A sued physician in good and reputable standing ought, by his professional brethren, to be considered and sustained as innocent of the charge until he is proven to them guilty.

Lawyers, to sustain these cases, depend much on the jealousies and antagonisms among physicians, and it is a sad truth that their expectancy is too often realized into a certainty.





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Whereas, if it were manifest to lawyers, especially to the class that generally work up these cases on the make, that medical men would not only make their disapprobation of such prosecutions pronouncedly manifest, but that also the lawyer who sought them subjected himself to the pronounced disfavor of the medical profession in general, malpractice cases would become rare.

A respectable and truly skilled physician resident in an adjoining town, had brought into his office a hard working rheumatic wash woman who had fallen upon the icy pavement and sustained a fracture of the fore-arm just above the wrist.

You are all familiar with the character of such a fracture; the bone union was good, but recovery, as might be expected in such a patient, was followed by rheumatic thickening and partial loss of motion.

A shyster lawyer hunted up and begged the case. At the trial the rheumatic history of the patient was fully established, but a sympathetic jury under the stimulation of a lurid and lachrymosal plea brought in a verdict for One Thousand Five Hundred (\$1500.00) Dollars against the doctor. After the trial one of the jurymen, who was being expostulated with by a physician upon the rank injustice of the verdict, replied: "Why did you not show this interest in the case when it was on trial?"

If malpractice trials were before a judge, and rested solely upon the merits of the case, there would be far fewer actions brought and verdicts found.

For in very fact the dispassionate truth and merit of the case in issue rarely determines the verdict of the ordinary jury.

The usual line of argument, the winning card played by the lawyer for the prosecution, is to attempt to obscure the real case by persistently iterating and re-iterating, before the jury, a hypothetical case, until its constant repetition establishes it in their minds as the real case; then appeal to their class prejudice by a little cheap sarcasm against the medical profession in general; touch up their vanity by complimenting their "hard sense," and finally work thoroughly the sympathy racket. Hence the reason

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for the fact that the larger proportion of jury verdicts in malpractice suits are set aside by the discriminating and just judge.

A well known and honored member of this society was defendant in a case before a jury of which five were cripples. It is needless to add that that jury promptly found a heavy verdict against him, which verdict, the judge being of sound mind and body, as promptly set aside.

The conclusions of this brief presentation are apparent to you all and do not need a resuming.

A NEW NEEDLE FOR PLACING INTERRUPTED SUTURES.

BY G. W. CRILE, M. D.

Professor of Principles of Surgery, Wooster Medical College, Cleveland, O.

The difficulties encountered in placing with safety and expedition the interrupted suture and successfully soliciting primary union with a minimum cicatrix, have suggested a new needle and another method. In suturing the abdomen, the safety of the intestines demand so much care and exactness with the methods and instruments in vogue, that valuable time is often lost, and damage occasionally done. To the method in which each end of the suture is threaded into the needle, and the needle passed from within, outward, objection may be found in the complication of so many needles; in the danger to the intestines if the needle should break or the needle-holder slip. In using the Peaslee and like needles, if the abdominal wall is thick, suturing is done with not a little difficulty. Besides, the danger in passing a needle from without, inward, is not to be overlooked. In any method in which the sutures are in care of assistants, there is a probability of their being infected. Aside from the matter of expedition and safety, the course of the suture should receive some attention. The ideal is an ellipse, placing the maximum tension of the suture on the middle of the abdominal wall, preventing the retraction of the interior of the wound by muscular contraction. Further, in placing





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the maximum tension thus, the secretions of the wound will be forced to the surface, instead of tending to remain intramural. Any method by which the abdominal walls are pierced at right angles, or at least the needle is passed through the walls in a straight line, the tension is distributed at the four angles of the quadrilateral course of the suture, giving the maximum tension at the periphery, tending to defeat natural drainage as well as close and continuous coaptation of the interior of the wound.

What has been said in regard to abdominal sutures may be said of sutures anywhere involving a considerable portion of tissue as, for example, amputation flaps. With a view to meeting the indications and avoiding the objection, if my position be well taken, I have devised a needle, composed of a hollow metal handle, in which an adjustable spool on which sutures may be wound, is placed; several spools may be carried in the handle; the entire instrument with its contents may be sterilized; at the needle end there is a small aperture for the passage of the thread.

There are curved needles of assorted sizes and patterns with an eye near the point, the thread is drawn through the aperture in the handle and passed through the eye of the needle. In suturing, the threaded needle is passed through the flap, the free end caught and held, the needle withdrawn and suture cut; the needle remains already threaded for the next suture, which is in a like manner applied. In placing abdominal suture, the needle may be passed from within, outward, the free end caught and held, the needle withdrawn, then passed from within, outward, in the other side, the thread cut beyond the needle, the needle withdrawn, already threaded for the next suture. The advantages claimed are the following: It is a most rapid and safe method; the needle being curved, the course of the suture is naturally elliptical; the handle being filled with an antiseptic or an aseptic fluid and the suture drawn from it as it is placing makes infection impossible. Thick walls and heavy flaps present but little greater difficulty than thin ones; the handle being large enough to comfortably fill the hand, fatigue is avoided by bringing into service all the muscles of prehension. wish to acknowledge my indebtedness to R. Parsons & Son for their skill and care in constructing the models for me.





CLEVELAND MEDICAL SOCIETY.

REGULAR MEETING, Nov. 22, 1895.

Dr. W. E. Wirt presided in the chair.

DISCUSSION

Of Dr. Brainerd's Paper. (See Page 209.)

Dr. Tuckerman: There is one feature of the malpractice law in the state of Ohio, if the law has not been changed, which it is well for us to remember, and not remembering that cost our esteemed friend, Dr. Hart, a good

deal of money.

A boy, a little ragamuffin, fell down and injured his elbow. He came to the doctor's office with his father. The doctor dressed the arm and ordered him to return the next day. He never returned. No fee, no return, no anything. Until some time after, a suit for malpractice turned up. The doctor thought it was a sufficient defense that the boy never had come back. But he found that there was, in a former railroad case, a decision that a minor could not contribute to his own detriment. And thus it would become necessary for the doctor to go after that boy and corral him for proper treatment. He paid \$400.00 for that experience. The moral is, unless he is in a family that you know well, let an injured minor alone. Let some other fellow take him. That was what Hippocrates advised in the olden days, when asked what should be done with a compound comminuted fracture of the thigh. He said: "Let some other doctor treat it."

While a student in Long Island College, I heard of an epidemic of malpractice suits they had in a little town. One fellow broke a leg. There were the usual half-dozen doctors and the usual jealousy. The man brought suit and got a nice little verdict, and that was fun. And then some other fellow had a fracture of the arm. The arm was not quite nice, and there was a malpractice suit. Until every doctor in the town who did anything in surgery had a suit or two against him.

It happened just about that time that a man fell and broke his thigh. They ran to the leading surgeon of the town and said: "There is a man down there with his thigh broken." He said: "Who's his lawyer?" "He has broken his thigh." "Who's his lawyer?" They went to another doctor and he would not come. Another doctor, and he would not come. They were finally obliged to send 25 miles out of town and pay a surgeon \$25.00 a trip to take care of that leg; and they learned something.



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DR. Bunts: The statements the doctor made in regard to the jealousies of physicians has not, perhaps, a very powerful bearing by itself. It is usually necessary to have the testimony of physicians, unless the deformity is very plain. And then you can not be sure. It seems to me there is no telling. We see a man with a crooked leg or deformed wrist, and ask him what doctor treated that, and suggest that he ought to have a straighter leg or movable elbow or something like that. We do not see just why that did not turn out right, and that is apt to start him to thinking. And we may be called upon to give testimony in that case.

No physician who has not been actually present at the care of fracture cases can tell the circumstances that surround the care of that case, and what may appear a deformity may be a masterpiece of surgery; and we ought to bear that constantly in mind not to criticise deformities as such when we are not aware of the circumstances surrounding their care.

DR. HUMISTON: I think Dr. Bunts has hit the nail on the head; and were it not for the support that the lawyer receives from physicians, there would not be very many malpractice suits; and I do not think any reputable physician ought to testify against another physician in these cases.

I have had some experience in being threatened with malpractice suits, but never enjoyed the real article; but I think I have in my experience prevented a great many malpractice suits. I have frequently had cases brought to me with a broken arm near a joint. The case would be brought to me to examine and express an opinion. In the talk, I have learned that a suit was in contemplation, and have absolutely refused to examine the case.

I feel that we ought to be on our guard in respect to

criticising a fellow practitioner.

DR. HERRICK: I have been afflicted with the same disease. One who has suffered from a grave form of disease perhaps is more familiar with it in detail than is one who has knowledge only from theory. The question occurred to me when this subject was proposed: "Cui bono?" We are in the hands of the learned profession who choose to make us common prey. Is that true? And that, too, we are called upon, and through our natural sympathy, we perhaps yield. It is the natural impulse to go and relieve the suffering one. This is a fact.

Now, the Doctor has very elegantly given to us the symptoms as they occur, recognized distinctly the different symptoms as they occur, but failed in a measure to go back and give the symptoms of the cause, the etiological factors

of this difficulty.





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What are the causes? Why, unfortunately, some physicians perhaps have saved something out of their earnings. The man who, by prudent economy, has saved something, is the man they are after. Then comes in another factor—the envy and jealousy of some physicians. We have some such in the profession who think perhaps by drawing down this man who is making a success, we can make a little larger space for ourselves.

And then comes in the avarice of the attorney. He has no business. He is a young man perhaps, and he commences suit and will bring in some other man of more repute

to assist him.

And then, possibly, as the Doctor has very well said, the case is not tried upon its merits. It is some hypothetical action which is entirely foreign to the case, and the victim is dragged through the slough of suspicion, smeared over if possible, and made to appear as odious in the eyes of the jury as possible. And the attorney contributes to that.

And so we are subject to that kind of difficulty if there has been any success in our work. And it is true that no

physician is exempt from the danger.

You can not discover the bacterium which causes the infection, but it is there and it will work its effect upon the individual. Sometimes an unkind suggestion is sufficient to give encouragement to a dissatisfied person, or one who is impecunious and takes this recourse to replenish his exchequer.

Now, these are conditions which every physician may experience, and the trial is not one to be sought for. You are prosecuted perhaps for \$10,000. The attorney you select with care defends you against that amount. It does not make any difference if there is no show for more than \$50.00, he charges you in proportion to the amount he defends you against. He does not charge you for time, but in proportion to the amount he defends you against.

in proportion to the amount he defends you against.

There was a lawyer whose family I agreed to take care of by the year, and he would take care of my lawing. I did a large part of his doctoring for years with no attorney's business. When I came to have a case brought against me, I said, "Now there is nothing in that. You make a general

denial." But he charged me an exorbitant fee.

There is one learned profession arrayed against another. Can you conceive of anything more ridiculous, more horrid, in a civilized community? There should be an organization of the profession to defend ourselves—an organization or fraternity, a kind of brotherhood which would stand for mutual defense would be right.



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I was never more conscientious in doing honorable and skillful service than a case I was prosecuted for. I would take the case before any medical society, and yet there were hypothetical conditions.

Dr. Bard: I am another of those unfortunates who have had this disease. And the worst of it is, one attack does not give immunity from another. There is one of the sequelæ of this disease that has not been touched upon, which I know, and I think several of the others know also, but have forgot to mention. Nine-tenths of these cases are among poor, ignorant people who can be deluded into entering a case of malpractice against a physician. What is the result. Suppose you win your case; you not only have your lawyer to pay, but you will find that you have all of the court charges to pay in addition. I know that from experience.

And there is but one way that I know of, as a rule, for members of the profession to avoid malpractice cases. At least, I have made it a point to do so, that wherever I think there is a possibility of anything of that kind arising, I always demand and have a consultation, which will in most cases prevent the entry of a case for malpractice. I am heartily in accord with what Dr. Herrick has said in regard to mutual

benefit associations.

I remember a case that I had some three years ago—a fracture of the thigh, and I fortunately got a very good result. I presented my bill, but could get nothing. Some little time afterward, I met a relative of the member of the family I had treated, and I asked him if there was no way in which I could collect my bill for services. He said: "There is none that I know of; and another thing, you can consider yourself very lucky, for if you had not got a good result, they intended to sue you for malpractice."

DR. SHERMAN: I have not got this disease, but it is coming. I have been very much flattered by a visit from a very distinguished member of the bar, Mr. Shoup, Mr. Wm. Shoup. He came to my office about a month ago and sent in his card. I was engaged in my private consultation room. Recognizing the name, and not having any professional relations with him, I stepped to the door and asked his business. "Well, I would like to see you very confidentially." "Are you suffering from any trouble, sir?" "No, no, nothing of that sort. But I have been approached by Mr. So-and-so who said that you had ruined his daughter's health. But I could not think of accepting the case before consulting with you, before giving it publicity." I replied: "I know of but one place where the matter could be adjusted,





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that is in the courts." My attorney said I was exceedingly clever. I was not aware of it.

I was very much flattered when a few days after that, a suit was brought against me for \$10,000.00, and I have been working my tailor, grocer and butcher ever since on the strength of it. My feeling of flattery has given place to one of a different kind since hearing what has been said in regard to attorney's charges being in proportion to the amount defended against. I am feeling pretty tame. There is only one thing that kept me from collapsing. I bade my father good-bye last Sunday. He went to California. He said: "By the way, young man, if that little affair of yours comes off and you need any funds, my address is Pasadena, Cal."

DR. ORWIG: I would like to ask the essayist, or someone else, if there is no possible way in which we can avoid malpractice suits but by refusing to take cases? Can we fix things any different by some contract by which we can avoid such suits?

DR. HERRICK: I take it upon myself to answer this question. I demand the privilege of preceding treatment by contract. It has this very effect. In this contract I say: "I agree to accept the services of Dr. So-and-so, and trust to his faithful performance of duty, and release him from all liability."

I had a case of a fracture of the lower end of the tibia and fibula, involving the ankle joint. I said: "This involves a serious difficulty. I shall have you sign a contract of that kind." The leg required amputation. At any rate, it has

its moral effect upon the patient.

One other point, it is not possible for any gentleman to collect, with benefit to himself, an account in the courts. You can not bring an account into court with benefit to yourself and prosecute it to conclusion. Go before a justice of the peace and get your case appealed to common pleas. There go up with your case, and perhaps you are charged with malpractice. If the person is responsible, they will make you more trouble than the whole thing is worth.

DR. BRAINERD: This discussion is not like the one Dr. Tuckerman led in, in which heat and light produced friction. Discussion is too much like the handle of a jug—all on one side. I observe also a great deal more keenness of interest; because, perhaps, they are seeking after the unknown.

In a general way, to cover several of the points raised, it is very rare that a malpractice suit occurs in a good family. They appreciate your treatment, they appreciate



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also the disadvantages. Almost invariably a malpractice suit originates from some charity or emergency case, and two-thirds of them are not brought for bad results and bad treatment. They are brought on the ground of neglect. It is a far more available ground to the shyster than is treatment. It is much easier to prove before a jury. In this city, as everywhere else, there are a few attorneys who spend much of their time, because they have nothing else to do perhaps, going around hunting up cases, making them, developing them; and the fault of their finding them and bringing them, as Dr. Bunts said, rests very largely upon a shrewdness and sagacity by which they say to their prospective client: "You go and let Dr. So-and-so examine

this leg, arm or foot."

There is one point we did not touch. It is a painful fact that if any one of you is defendant in a malpractice suit, however clear your conscience may be, you will find that when that trial comes on, your medical friends, except a few tried and true ones, will be conspicuous by their absence. What is the influence upon the jury while the friends of the prosecution will be there strong? If there is any woman who has a lachrymosal duct which is in good working order, she will be there with a clean handkerchief. Gentlemen, I make one point, if you have a regard for a professional brother, and he happens to be hit by this severe malady, show that regard to him in a tangible way, if his case ever reaches trial, by being there and creating a moral atmosphere in his favor. You have no idea the telling force of that on a jury.

THROAT, EAR AND EYE SECTION OF CUYA-HOGA COUNTY MEDICAL SOCIETY.

The Regular Monthly Meeting of the Throat, Ear and Eve Section of the Cuyahoga County Medical Society was

held Friday evening, January 3, 1896.

The report of a case of inoculation with diphtheria, by a bimanual examination of the lower jaw, after seemingly thorough antiseptic precautions had been used, brought out an informal discussion in regard to the best manner of thoroughly cleansing the hands and instruments after treating diphtheria.

The program of the evening was then taken up, and Dr. W. C. Weber read a well prepared paper on Atrophic Rhinitis, which was discussed by Drs. Baker, C. W. Smith,

Wm. Lincoln and Straight.

The subject of Embryology of the Eye was presented in a very interesting and instructive way by Dr. Hamann, and was illustrated by sections and drawings.

J. M. INGERSOLL, M. D., Secretary.



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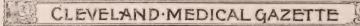
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JOURNALS AND JOURNALS.

A recent number of the Cincinnati Lancet-Clinic contains an editorial of such excellence that we are constrained to quote some of its conclusions and add a few more on our own account. The editor alludes to the recent removal of the Medical News and of the Medical and Surgical Reporter to New York, and draws a few lessons that may be valuable alike to the profession at large, to advertisers in and subscribers for medical journals, and last but not least to medical journals themselves. He shows the two sources of income



Editorial.

to the medical journal, namely, the advertiser and the subscriber. He argues that the journal is worthy of the support of both, acting as it does as a means of bringing the advertiser and the subscriber together as purveyor and purchaser, and practically endorsing to the subscriber the general reliability of the advertiser. He queries whether the removal of the journals aforementioned to other cities is due to lack of proper support from advertisers or subscribers, and proves the delinquency of either to be reprehensible. It is shown that the well conducted journal is entitled to the support of the business houses of its own as well as other cities, and that subscribers advance their own interests when they prefer to patronize firms which help to support their medical journals and so lessen the tax upon the subscriber. Then comes the question of the relation of the medical college to the medical journal, and there is no denying that the success of the colleges can be largely influenced by the journals. That the medical colleges do live and some few of them do thrive without direct support of the journals, and that the journals do continue their existence without the support they should receive from the colleges is not denied, neither is there any denying that this state of things is not, in the

Concerning journals published by medical schools, he says: "The medical schools of Philadelphia have tried and are trying the experiment of publishing their own journals. Those schools are so strong and so wealthy that they can issue creditable publications, but while they are doing this they are destroying journals that should be liberally sustained through their own patronage. This is done not so much through a curtailment of subscription lists as by withholding an advertising patronage which the weeklies have a right to expect and which should be given them.

interest of either the colleges or the journals what it should be.

At the opening and closing of all medical colleges the faculties of these institutions expect liberal announcements and reports in the medical journals, and would think the journalist sadly lacking in enterprise who did not make and publish such reports, as the faculties would say as news items looked for by subscribers. Yes, truly; but who is benefited most of all? The colleges.





Editorial.

There is not a medical school in America that owes so much of its success to the medical press as the Johns Hopkins. The returns for this success are all blanks. It has never paid to any journal a single dollar. Not only so, but its faculty is of so superior an order that it feels under the necessity of creating a publication that shall be all its own, and none of its pages defiled by the contributions of other physicians. The policy mentioned is narrow, illiberal and unworthy of American citizens. There are some good things about Johns Hopkins, but they are limited, and their equal or superior may be found elsewhere.

Let the medical press of the United States shut out from their pages absolutely the name of Johns Hopkins and of every one of the faculty of that institution, and at the end of a year it might be buried, and the death return would say, died of "dry rot."

Personally, the writer has no grievance at Johns Hopkins, but the medical profession has, and particularly that portion of it that is represented by the medical press."

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Now, personally, THE GAZETTE has no grievance with the medical colleges of Cleveland or of Baltimore, but stands ready to endorse many of the sentiments of our brother down the country, and we can even offer him a word of cheer. He need have no fear that journals published by medical colleges will ever usurp the place of legitimate journalism. Their field is too limited, and their object too selfish to bring permanent success. Their productions may, like the proceedings of the medical societies organized and attended exclusively within their own faculties, elicit mutual felicitation in their own little circle, but they fail to reach and influence the body of the profession. Even their own alumni decline to pay subscriptions to any extent. As long as the college pays the printer's bills, the journal exists. But, unless the institution is very wealthy or exceedingly proud, the publication is soon discontinued for the reason that—it does not pay. Its object of self-aggrandizement is too obvious to enable it to exert influence. It has no audience outside of those who would know of its doings, anyhow. It sinks to the level of the college catalogue or periodical announce-

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ment. It goes into the waste basket of the discriminating doctor, along with the trade journals. If those in charge of the college funds have any regard to the useful employment of those funds or any business shrewdness, the experiment is discontinued. They fall back on the annual announcement, a few page ads or cards, and the liberal gratuitous notices of the regular journals. The Gazette has lived long enough to observe, more than once, the steps of this experiment and has predicted the result which came. Each decade witnesses the birth and passing away of many such ephemera. * * * * * * *

There is another class of imitation journals—those published by manufacturing firms. The manufacturer sees the advantage of advertising in journals. He considers that advertisements bring a profit to the medical journals. He is not content with the profits of his own business, he will pocket the profits of the journals. He will have a journal of his own, and so advertise at first cost. He finds a doctor who hasn't much to do, and for what he can make out of it, is willing to fill his idle table and fingers full of ink instead of blood. The doctor sees in the project journalistic distinction and bread and butter. He goes to work, clipping from regular journals and arranges the harvest of his scissors, smoothly interlarded with original contributions containing covert advertisements furnished by the manufacturer, and he fixes up a dummy that looks, at first glance, something like a medical journal. The firm sends them broadcast and every doctor receives one. The doctor gives it a glance—then he picks it up. Then he gives it a closer glance; then he smells it. Then he carefully bestows it in the waste basket, muttering something. Does it pay that manufacturer to not only fail to secure the attention of the desired customer, but to insult his intelligence by attempting to dupe and dope him with a sugar-coated advertisement? Does it appeal to the doctor's sense of fairness when the manufacturer declines to help the subscriber to pay for the legitimate, independent journal, their natural means of communication?

The manufacturer and his agent will find the answer to these questions after they have spent more money than



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respectable and honest advertising would have cost them. The imitation journal will discontinue or dwindle to the form of "Monthly Memoranda" or other small slips which the doctor finds handy for cigar lighters, and the manufacturer opens correspondence, and if he has any merit worth presenting, places an ad with the independent journal.

* * * * * * * *

There are other barnacles upon journalism as there are sects in medicine and cliques in the profession, but while they deter, they cannot stop progress. If necessary, we might describe at length the medical society organ. It is one grade higher than the college and the trade journal, but belongs in the same class. It is built on narrow lines, modeled very much like the college journal. It is a craft that sails very prettily in the societies aquarium to the delight of the members, but lacks beam and draft to navigate the open sea of journalism. The society journal always lacks the favorable wind of wide professional patronage. It is in duty bound to publish at length the proceedings of the society and the remarks of each and every member, and to present the views and advocate the policy of the organization which it represents. Now, all this may be very edifying to the membership, and very entertaining while the toy is new. But it is not so important or interesting as might be imagined to the profession outside of the membership, and the utterances of a controlled mouthpiece are always taken with a grain of salt.

Furthermore, such a craft always lacks ballast for a long voyage—the solid ballast of advertising patronage. The substantial and experienced advertiser knows very well the narrow limitations of such a medium, and the less experienced soon finds it out. Consequently, its support depends upon the subscribers, and the subscription list depends upon the membership of the clique in whose interests it is published. So it sails around and around in its tub very prettily.

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There is the class of journals known as pirates. They appropriate the treasures gathered by others and furnish nothing themselves. We have had more than one round with them in the past and shall have more in the future.

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We are loaded to the muzzle for pirates and the profession is on our side. The profession is tired of the impertinences of manufacturers journals, of the selfishness and littleness of magazines published by colleges, clubs, cliques, or clans, of the brazen effrontery of the piratical publications living on the generosity of those journals which publish original matter without copyrighting it. The profession knows there is no journal to represent its interests without fear or favor, and to advance its progress, excepting the independent journal living for and by the profession at large. The GAZETTE glories in this distinction and in the fact that it is the only medical journal in this city or section of the country that has no obligations or affiliations to deter it from its duty to the profession, no axe to grind, and no wire to pull, no fence to confine, and no master to obey.

All colleges, all societies and all physicians are alike in our eyes, and are measured by the same measure at our hands, our sole aim being to equally serve the whole of the profession within our reach.

All who like this broad platform are the friends and patrons of the CLEVELAND MEDICAL GAZETTE.

THIRD ANNUAL BANQUET OF THE CLEVELAND MEDICAL SOCIETY.

The Cleveland Medical Society held its Third Annual Banquet at the Hollenden Hotel in this city, on the evening of January 10, and like the previous banquets, it was a most enjoyable occasion.

The hotel parlors were thrown open, and the guests enjoyed a half hour of pleasant conversation before partaking of the good things provided by the reception committee.

When the hour for refreshments came, the dining hall was found to be beautifully decorated with tableware, palms and blossoming plants, and the special orchestra that had furnished music for the parlors and halls, now played many choice selections during the dinner and following program. The ladies also made the affair doubly pleasant, not only by their presence, but by taking an active part in the exercises.

The Hollenden management did itself and the Society much credit in serving the banquet, which was well prepared.

After dinner, the toastmaster, Dr. H. G. Sherman, announced the program and called upon Dr. Wm. E. Wirt, retiring president of the Society, who gave a clear resume of the past year's work, showing how much progress had marked the activities of the new society, and in a casual way spoke of a marked increase in the activities of medical matters in general throughout the city during the past five years, which were all tending to make Cleveland more of a medical center than ever before. This, he said, was most fitting, as we are about to celebrate the city's centennial during the coming year, at which time much attention will be attracted in our direction, and much inquiry will be made as to our medical status.

Dr. J. E. Cook, the incoming president, then outlined, in a general way, his plans and aspirations for the future of the society, and was heartily applauded.

W. F. Carr, President of the Bar Association, ably represented the legal fraternity in a happy address.

The Chamber of Commerce was represented by its president, Mr. Wilson M. Day, who set forth most clearly that that organization is in the fore front to assist all active movements of the city, and let it be said to the credit of the members of the Chamber of Commerce, that many favors have been shown by them to the Cleveland Medical Society in the past.

Mayor McKisson responded graciously to a call for remarks, and told several humorous stories.

Toasts, "Our Aims and Realizations," and "The Personality of the Doctor," were ably responded to by the deans of our leading medical colleges, Dr. M. Rosenwasser, representing the University of Wooster, and Dr. H. H. Powell, representing the Western Reserve Medical College.

Dr. N. S. Everhard made a most refreshing speech for "Our Non-Resident Members," and Dr. Woodward, Marine Surgeon, was called upon by the toastmaster as "the silvery tongued orator," to speak in behalf of "The Ladies," and judging from the hearty manner in which his remarks were



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received, the ladies were fully satisfied with their representative.

The Rev. Marion Murdock, of Unity Church, responded in behalf of the clergy, and took occasion to chaff the other professions present, by remarking that it has been said that lawyers work with a "will," and that the doctors often assist them in their calling.

Mrs. Dr. T. M. Sabin, of Warren, Ohio, was well received under the head of selections. Her standing as an artist in elocution is well known and appreciated.

The menu and program folder, which was decorated externally by an original design, made by a physician's wife, Mrs. N. M. Clapp, read as follows:

THIRD ANNUAL BANQUET.

. . . . 1896

"Physicians, of all men, are most happy; whatever good success soever they have, the world proclaimeth; and what faults they commit the earth covereth."

"Good company and good discourse are the very sinews of Virtue."

- TOASTMASTER, - - DR. H. G. SHERMAN "Let him be sure to leave other men their turns to speak."
- Address of Retiring President, - Dr. Wm. E. Wirt
 "Whose yesterdays look backward with a smile."
- Address of Incoming President, Dr. J. E. Cook
 "With hints and prophecies of things to be."
- Address, - W. F. Carr, President of Bar Association "The only thing certain about litigation is its uncertainty."
- Our Aims and Realizations, - Dr. M. Rosenwasser
 "The Present is the living sum-total of the whole Past."
- OUR NON-RESIDENT MEMBERS, - DR. N. S. EVERHARD

 "His worth is warrant for his welcome."
- RESPONSE, WILSON M. DAY, President Chamber of Commerce



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THE PERSONALITY OF THE DOCTOR,

DR. H. H. POWELL

"In every condition of life the true question is—not what we gain, but what we do."

THE LADIES,

DR. R. M. WOODWARD

"The world was sad,—the garden was a-wild; and Man the hermit sighed—till woman smiled."

SELECTIONS

MRS. DR. T. M. SABIN

"I hold your dainties cheap, Sir, and your welcome dear."

BLUE POINTS

"This treasure of an Oyster."

PUREE OF TOMATOES

CELERY

OLIVES

BROILED FRESH COLUMBIA RIVER SALMON

PARISIENNE POTATOES

"Fishes that tipple in the deep."

BRAISED SWEETBREADS, GREEN PEAS
"The sauce to meat is ceremony."

PUNCH

CHICKEN SALAD

ICE CREAM

CAKE

"I will make an end of my dinner; There's pippins and cheese to come"

NUTS AND RAISINS

CHEESE AND CRACKERS

COFFEE

"He who doth not smoke hath either known no great griefs, or refuseth himself the softest consolation."

C. W. S.





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CLEVELAND MEDICAL SOCIETIES.

We publish below a list of the Cleveland Medical Societies, together with the date, time and place of meeting which may prove of value to our readers for reference. The multiplication of medical societies has increased to such an extent that it is impossible to attend all of them. Often papers are read and subjects discussed that would interest members of the profession who would be present if the paper or subject were announced before hand. If the secretaries of the various societies will furnish us with the program as nearly correct as possible, not later than the 20th of the month, we will take pleasure in printing it in the current number.

Cuyahoga County Medical Society, first Thursday evening of each month, Builders' Exchange rooms, Arcade.

Medico-Legal Section, third Thursday at 6 o'clock at the Forest City House.

Throat, Ear and Eye Section, first Friday evenings, usually doctors' offices.

Cleveland Society of Medical Sciences, third Monday evening at Y. M. C. A. building.

Cleveland Medical Society, second and fourth Friday evenings, at Chamber of Commerce rooms, Arcade.

The Pathological Journal Club, first and third Thursday evenings, Wooster Medical College building.

City Hospital Clinical Society, at Hospital building, second and fourth Monday evenings.

CLEVELAND SOCIETY OF MEDICAL SCIENCES.

The last regular meeting of this society was held at the Lakeside Hospital. At this meeting it was proposed to change the name of the society to the Cleveland Clinical Society, and to meet so far as possible, at the various hospitals of the city. Change the time of meeting from Monday to Thursday evenings and to meet twice a month. Increase the limit of membership from 40 to 60. These amendments to the constitution will be voted upon at the next meeting, which will be held at the City Hospital the third Monday in February. Dr. J. H. Lowman was elected president, Dr. C. A. Hamann secretary, for the ensuing year.



FORMALIN CATGUT.

By Hunter Robb, M. D.

For a long time it seemed almost doubtful whether the efforts of surgeons to discover a reasonably simple and at the same time a reliable method for the sterilization of catgut would ever be crowned with success. By those, therefore, who from sad experience had become afraid to use catgut prepared according to the older methods, the successful experiments with cumol for this purpose were hailed with enthusiasm. It is true that, as Vollmer says, the method is open to the grave objection of being costly and that the procedure demands the greatest care in order to be carried out successfully; but the fact that we could at any sacrifice of time or trouble safely retain catgut among our suture materials was certainly to be regarded as a great advance. Recently Kossman¹ of Berlin has published several reports of the successful use of formalin in this connection, and the value of these has been greatly enhanced by the results of the experimental work done by his assistant, Hans Vollmer,2 which have just appeared, the object being to prove that catgut treated with formalin was rendered bac-Vollmer made two sets of experiteriologically sterile. ments: (1) with catgut which had been deprived of fat and (2) with catgut in its ordinary state. The second set of experiments was suggested by noting the effect of formalin when used as a preservative and as a hardening agent for specimens. Vollmer's procedure was as follows: The catgut having been allowed to soak in sterile water until it was well swollen up was then thoroughly infected with fresh cultures of streptococci and staphylococci. The threads were then placed in solutions of formalin varying from 0.5 to 2 per cent. and allowed to remain for 24 hours. Control experiments were conducted, the catgut being allowed to remain in a 1 per cent. solution of bichloride of mercury for the same length of time. After being thoroughly rinsed in sterilized distilled water until all the formalin had been removed, the threads were transferred to gelatin culture media in Petri dishes which were then placed in a thermostat. A number of experiments showed that immersion in a 1 per cent. formalin solution for one hour was sufficient to prevent any growth in the culture media. From the catgut, however, which had been exposed for twenty-four

¹ Centralblatt fur Gynäkologie, No. 20. May 18th, 1895.

² Centralblatt fur Gynäkologie, No. 46 November 16th, 1895.

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hours to a 1 per cent. bichloride solution, very typical cultures were obtained. This last fact is not surprising when we recollect that sublimate in the presence of albuminous bodies undergoes decomposition, an albuminate of mercury being formed, and thus loses the greater portion of its effectiveness as a disinfectant. Formalin on the other hand does not decompose under these circumstances, but penetrates far more deeply and quickly than the bichloride.

In Kossman's clinic, in order to ensure its absolute sterility, the catgut, which by the way, was not previously deprived of fat, was soaked in a 2 per cent. solution of formalin and afterwards kept in a one-half per cent, solution of the same drug. In view of the fact, however, that modern surgery demands an aseptic and not necessarily an antiseptic material, and since catgut, when allowed to remain for several weeks in a solution of formalin, will become brittle, it was found best to free the strands from formalin by washing them thoroughly in sterile Tavel's solution, after which they were kept in the same fluid. For this purpose Tavel's solution is much preferable to distilled water, inasmuch as the catgut is found to swell very considerably in the latter. Another method given by Vollmer is as follows: The catgut, having been cut in the lengths desired, is rolled in bibulous paper and placed in a 2 per cent. solution of formalin for twenty-four hours. The excess of formalin having been afterwards removed by means of blotting paper, the package is placed in a drying oven at a temperature of 60° C. until all the moisture has been given off and is then kept in a dry state. The catgut, just before being used, is placed in some sterile fluid to render it flexible.

Vollmer prefers the formalin method for the following reasons:

(1) It is effective.

(2) It gives less trouble and is much less costly than the cumol method.

(3) Formalin catgut is very strong and durable; it is flexible, knots well and is not slippery. It holds decidedly longer in the tissues, resorption not beginning before the 14th day.

I would suggest that after the catgut has been sterilized in formalin and washed thoroughly in Tavel's solution, it could advantageously be kept in sterilized bouillon till it is required for use. If this were done, any defect in the technique of sterilization could at once be recognized, and one could be sure of the aseptic condition of the ligatures at the time of the operation.

3 The formula of Tavel's solution is as follows:—Sodii calorat, 7.5 Sodii carbonat, 2.5 Aq. destillat, ad 1000



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A NODULAR TAENIASIS IN FOWLS.

By Veranius A. Moore, M. D.*

From the Bureau of Animal Industry, U. S. Department of Agriculture. Circular No. 3.

In the spring of 1894 a fowl died at the Bureau of a disease characterized by nodules in the intestine. These nodules appeared chiefly in the lower third of the small intestine and could be found even in the duodenum and in the colon in small numbers.

The fowl was much emaciated and the lesions all restricted to the intestine. In the subserous and muscular coats, but not in the glands in any considerable numbers, there were small nodules, the largest of which were about 1-6 inch in diameter. Some were circular and some elongated with the long axis parallel to the long axis of the intestine. The large nodules were of a pale or dark yellow color, the smaller ones varying in shade from the highly colored areas to the grey of the intestinal wall. There were corresponding nodules on the mucous membrane and these were covered with small tape worms, upon the surface. Sometimes these nodules had sloughed away and were replaced by ulcerated depressions.

The large nodules contained greenish-yellow necrotic material, appearing in the advanced stages and having an homogeneous appearance. The small nodules contained a purulent-like matter, appearing to the naked eye like spots of infiltration. The nodules were frequently found in the villi. The head of the tape-worm was seen with difficulty in the necrotic masses, but in some sections, the head could be seen and the body traced through mucous and cellular

tissue to the muscular, in which the head remained.

The tape-worms attached to the mucous surfaces were smaller, but of the same species as the other. It is thought probable that this disease is identical with the Taenia both-rioplitis of Piana, discovered in 1881.

The chief importance of a knowledge of this disease is to differentiate between it and tuberculosis which affects

the intestinal tract in fowls in a very similar manner.

When the intestine is opened and washed carefully with a gentle stream of water, small worms can be seen with a magnifier, upon the mucous surface, this taken with absence of lesions in the liver and other organs shuts out a possibility of tuberculosis. Tuberculosis is not very common in fowls in this country, but many are killed while suffering from Taenia bothrioplitis because of inability to distinguish it from tuberculosis.

^{*} Abstracted and read before the Pathological Journal Club, November 10, 1895, by Mr. A. L. Smith.





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An Infectious Disease among Turkeys Caused by Protozoa (Infectious Entero-Hepatitis.*)

During the past ten years pathological literature has contained references to a series of diseased conditions in which protozoan parasites were associated, and in some of these cases the protozoa were looked upon as the actual etiological factor. As an example we may point to malaria, in which a protozoan parasite existing both in the blood corpuscles and in the fluid blood is the exciting cause of this affection. Much of the work upon the protozoa as parasitic organisms has been done upon vertebrate animals below man, and the work has always been helpful in human pathology, either directly or indirectly, from the comparative standpoint.

A recent contribution in comparative pathology which has some very interesting features for the student of human pathology, is that by *Theobald Smith* (Bulletin No. 8, 1895, U. S. Department of Agriculture, Bureau of Animal

Industry).

As indicated by the title, this disease which was observed in a number of turkeys, is characterized by pathological alterations in the intestinal tract and in the liver. The primary seat of the affection is in the cæca, the blind diverticula of the intestine of the turkey, which correspond in some respects to the vermiform appendix in man. The cæca are situated about six inches above the distal extremity of the intestine, and they are from 8 to 12 inches in length, and their lumen is about one-sixth of an inch in diameter. The first indication of the disease is an increase in the size of the cæca due to proliferation of the cells of its substance, to the ingress of leucocytes, to the increase in number of the peculiar parasites, and to the formation of an exudate in the lumen of the affected cæcum. The mucous and submucous coats of the cæca are the usual seat of these changes. The diseased condition appears to start at the blind end of the tube and then extend towards its intestinal end. These changes in the cæca are not, however, peculiar to the disease under discussion, for it is no uncommon thing to find alterations in this part of the intestinal tract without the other peculiar lesions of what Smith terms "entero-hepatitis." The other characteristic lesions of this affection are to be found in the liver of the animal. As a general rule this organ is increased in size. Here and there, upon its surface, spots of substances varying in color from the normal hue of the liver are to be seen; these spots vary in size, shape, and color, though the predominating color is a

^{*}Abstracted and read before the Pathological Journal Club, Nov. 24, 1895, by A. P. Ohlmacher, M. D.





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yellowish one, which makes the diseased foci stand out sharply, both on a surface view of the organ and in sections.

The symptoms of this disease in the affected turkeys were not constant enough to lead to its differentiation. It seemed to affect the young animals particularly, and in many older fowls post-mortem evidences of a former affection were found in the cæca and liver. Smith lays particular stress upon the liver affection in the post-mortem diagnosis of the disease, and he found the organ very extensively diseased in 16 out of 18 cases brought to his notice.

A microscopic study of the cæca revealed, along with the leucocytes, proliferated tissue cells and giant cells, peculiar bodies of a circular outline, differing in refraction from the tissue substance and from fat globules, containing a finely granular, protoplasmic material, with a dense aggregation of material apparently corresponding to a nucleus. These bodies Smith regards as protozoa, closely related to, or identical with the amoeba; similar bodies were also found in the affected areas of the liver substance, especially in the smaller and more recent foci. Aside from these protozoa many bacteria were found in the diseased cæca, and it seems probable that the progress of the disease depends in part upon these vegetable parasites. The examination of the fresh tissue in crushed preparations showed the parasites a little larger than in the sections of hardened tissue, but no amoeboid movement or contraction of vacuoles, such as is seen in certain living amoeba, was recorded. For microscopic study the tissue was fixed in alcohol, or corrosive sublimate, or Flemming's solution, imbedded in paraffin, and the sections were stained preferably with Delafield's hematoxylin and eosin.

The close analogy of this disease with amoebic dysentery in man is pointed out, for here also we have an ulcerative affection in the intestine followed frequently by an abscess of the liver, with the presence of the amoeba dysenteriæ in both lesions.

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MIXED TOXINS OF THE STREPTOCOCCUS ERYSIPELATOSUS.

By Hunter Robb, M. D.

R. Mueller in the Centralblatt fur Gynakologie of November 30, 1895, gives an account of a series of experiments conducted by Czerny in order to determine the influence exerted by the mixed toxins of the streptococcus erysipelatosus and of the bacillus prodigiosus upon malignant growths. The methods employed were in every respect similar to



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those recommended by Coley in the *Medical Record* of Jan. 19, 1895. The streptococcus erysipelatosus was cultivated for three weeks in bouillon which was then infected with the bacillus prodigiosus. The resulting solution was then "sterilized" repeatedly at 58°C until no further growth

took place.

Case I was that of a pregnant woman, 35 years of age, who was suffering from a growth which was diagnosed clinically as a diffuse infiltrating carcinoma of the parotid region. The microscopical examination showed the tumor to be a round cell sarcoma which contained a few scattered epithelial papillæ and epithelial pearls. (According to Lincoln this mixed form of sarcoma-carcinoma is not infrequently found in this region). After 18 injections the tumor became greatly reduced in size and the pain which had been no doubt in a great measure due to compression, was greatly diminished.

Cases II, III and IV were sarcomata of the naso-phar-

ynx which had recurred after operation.

Case II was an angio-sarcoma accompanied by swelling of the carotid lymphatic glands. Six injections brought about a distinct shrinking in the size of the growth.

In Cases III and IV only two injections were given and at the time of writing the patients were still under observation.

Of Typical Carcinoma four cases were treated but in only one was there any marked benefit. In this case which was one of wide spread carcinoma of the lower jaw after 18 injections, softening took place with distinct allevia-

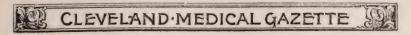
tion of the subjective symptoms.

After a careful consideration of Coley's cases, together with his own and those of others the author arrives at the following conclusions. (1) The injection in small amounts of sterilized, but not filtered, mixed cultures give rise to a rapid elevation of temperature often accompanied by a chill, status gastricus, stupor, delirium, sometimes herpes labialis, but almost never to inflammatory symptoms.

The intensity of these symptoms depends on the dosage and upon whether the toxins have penetrated into the blood vessels or are confined to the meshes of the tissues.

(2) The symptoms disappear in a few hours without any lasting disturbance of the general condition. Frequently repeated injections are followed by anorexia, loss of flesh, anæmia and apathy.

(3) The injections can exert a specific and under favorable circumstances a curative influence in cases of sarcoma. The growths become saturated and permeated with serum and wither. They are absorbed or undergo



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softening, portions of the growth becoming necrosed and

being thrown off.

(4) The results being so uncertain, this method cannot take the place of operative treatment. Its employment is especially indicated in cases of inoperable or recurrent growths. It is possible that it may be found effectual in preventing a recurrence after operation.

(5) In cases of carcinoma, the utmost that can be looked for from the treatment is a diminution in the rate of the growth of the tumor. Its employment does not bring

about a definite cure.



BY L. B. TUCKERMAN, M. D.

Recognizing the fact to which we called attention in our last, that iodoform is not an antiseptic, but needs to be kept aseptic as carefully as other dressings should be, DR. J. RIDDLE GOFFE, 1 of New York City, preserves his iodoform gauze in a bichloride solution (1 to 500) wringing it out of hot water when the time comes to use it. DR. RAMON GUITERAS, of New York City, is treating gonorrhaa successfully, so he testifies,2 by injections of nitrate of silver of increasing strength. Beginning with a solution, one grain to the ounce, and adding to its strength one grain per ounce daily, he found that by this gradual progression a ten grain to the ounce solution caused no irritation when it would not be tolerated at all if injected in the beginning. "My method of treating cases in this way at the present time is as follows: Having chosen fresh running cases and assured myself that there is no posterior urethritis or stricture, I put my patients on a diluent, the one most commonly prescribed, containing fifteen grains of acetate of potassium to be taken three times a day. I then order an astringent hand injection three times a day, the one generally used being a modification of the Ultzman, and contains carbolic acid, alum, and sulphate of zinc each five grains; glycerine, half an ounce; and distilled water, four ounces. On the first day about noon, after the patient has urinated, I wash out the urethra with warm water, and then inject two drams of a one grain to the ounce solution of nitrate of silver,

^{1.} Am. Gyn. and Obs. Journal, January, 1896.

^{2.} Therap. Gazette, November 15, 1895.





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allowing it to escape immediately, after which I wash out the urethra with a saturated solution of boric acid. On the second day I inject a two grains to the ounce solution, and so on, increasing the strength of my solution daily one grain to the ounce, or a fifth of one per cent. until the discharge has stopped or reduced to a slight sticky moisture about the meatus, which condition usually takes place about the eighth day. We should never continue this treatment beyond the tenth day, when a ten grains to the ounce solution is given, if necessary. After this the astringent hand injections and diluents are kept up for a few days, and if some discharges still exist, the silver solution may in some cases be continued, diminishing the strength one grain to the ounce a day instead of increasing it." Dr. Guiteras does not guarantee to cure gonorrhœa in from eight to ten days, but claims more rapid and permanent results by this method than by any other he has hitherto employed.

DR. A. JACOBI, of New York City, in an address on "Nephritis of the Newly Born," calls attention to an important practical point, viz: That fatal nephritis sometimes results from careless bathing of the infant, and this result ensues whether the water used be too hot or too cold. This observation of his, is another argument in favor of the custom of not a few obstetricians who direct that the infant shall be not bathed, but merely oiled and wiped clean dur-

ing the first few days after birth.

3. New York Medical Journal, January 18th, 1896.



Annual of the Universal Medical Sciences: A yearly report of the progress of the general sanitary sciences throughout the world. Edited by Chas. E. Sajous, M. D., and seventy associate editors, assisted by over two hundred corresponding editors, collaborators and correspondents. Illustrated with chromo-lithographs, engravings and maps. Volume IV. Published by The F. A. Davis Co., 1895, Philadelphia.

The eighth annual edition comes to us as usual, loaded with so many good things that we scarcely know where to commence to review it. About one hundred pages of extra editorial matter have been added, and an equal number of illustrations. The usual number of changes in associate, corresponding editors, collaborators and correspondents are noticed.





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For several years we have feared the high character of this publication would like that of the Index Medicus and other first-class publications, not meet with sufficient encouragement to justify the publishers in its continuance. But we are assured that the circulation is such as to make

it permanent.

Not infrequently specialists have remarked in the hearing of the writer that they would be pleased to take the one volume which contained the subjects pertaining to their special department, but did not care for the other volumes. This has always seemed to us a very unwise position for the specialist to take. The tendency of all specialists is to become narrow, to tread around as some one has said in a peck measure. While it is impossible for the specialists to keep up with all the literature in all the medical departments, he should at least have a general knowledge of all that is new in medicine and surgery, and there is no way of securing this knowledge with so little expenditure of time and money as in Sajous' Annual of the Universal Medical Sciences. In the writer's experience, the volumes pertaining to his own special departments have not proved so valuable as those treating of other subjects, the literature of which he is not so familiar.

Pathology and Treatment of the Diseases of the Skin, by Dr. Moriz Kaposi, Professor of Dermatology and Syphilis in the Vienna University. William Wood & Co., publishers, 1895.

This work of 684 pages, illustrated with 84 wood cuts, is now given to the English reading medical profession through the supervision of Dr. James C. Johnston. A production from so celebrated a teacher as Dr. Kaposi would naturally attract wide attention on the part of dermatologists in various countries; it is not strange, therefore, that it should find its way into English, nor is it to be wondered that the work should be translated and critically scrutinized by the French school of dermatology. The well known translation with numerous notes by Drs. Besnier and Doyon of Paris is probably the most complete of modern treatises on dermatology. The English translation, although not enriched by notes from such eminent authorities, yet renders a correct expose of the Vienna school which, since Hebra's time, has enjoyed a conspicuous position in the scientific medical world. The work is given in the form of lectures, being fifty-five in number, and illustrated by wood cuts and colored plates when necessary to make clear the author's meaning.





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New Books.

Lecture I treats of the history of dermatology. Every careful student delights to review the stepping stones by which those who have gone before have mounted to heights which would be unattainable in a single life-time. Nor is the review without profit, for among other things it stimulates to renewed exertion.

Lectures II and III treat of the anatomy and physiology of the skin. It is impossible to enumerate the lectures in detail, but suffice it for the present to say that the well known views which have so long characterized the Vienna school have in the present volume been somewhat modified. Hebra taught that diseases of the skin were for the most part local, amenable to local measures and seldom associated

with general derangements of the economy.

But Hebra had to combat the vague, humoral pathology of a time past, and as is so often the case, indulged too far in the opposite direction. His successor had no accepted system to combat, the pendulum had already begun to recede, and so we find in the volume before us a conservative course pursued, which does not differ essentially from the present teaching in France, in England or in America. We notice, too, the most advanced views taken of such subjects as lupus erythematosus, which he separates, all but in name, from lupus vulgaris; ezema with its varied causes both internal and external, and the glandular disturbances of the skin. Lichen ruber planus is used to designate the disease long the subject of controversy between Hebra and Wilson. Yet the work while broad is still the teaching of the Vienna school.

It doubtless will meet with a large demand in this country as it is a treatise of exceptionally high merit, and no physician who desires to be tolerably well informed in this department can afford to be without it. It is not too voluminous for under graduates and practicians will find it sufficiently full as a work of reference.

W. T. C.

Among the numerous medical publications coming under our notice, we have never before opened a book for

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY, 1896. A yearly digest of Scientific Progress and Authorative Opinion in all branches of Medicine and Surgery, drawn from Journals, Monographs, and Text-Books of the leading American and Foreign Authors and Investigators, Collected and Arranged by Eminent American Specialists and Teachers, under the Editorial Charge of George M. Gould, M. D. In one Royal-8vo volume of 1183 pages, uniform in size with the "American Text-Book" series. Profusely illustrated. Prices: Cloth, \$6.50, net; Half Morocco, \$7.50, net. Philadelphia: W. B. Saunders. Sold by subscription only.





New Books.

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which, to our mind, there exists a greater need, nor closed its pages with a more positive conviction that it will

thoroughly fill its mission.

Everything of any importance in any branch of the healing art, which has been brought to light during the past year, finds careful recognition here. The critical comments made by the various contributors uniformly leaves the reader without the least doubt as to which is the most valuable discovery in pathology or the most approved method of treatment.

The work is divided into fifteen sections, as follows: General Medicine, Surgery, Obstetrics, Gynecology, Diseases of Children, Nervous and Mental Diseases, Dermatology, Orthopedics, Ophthalmology and Otology, Rhinology and Laryngology, Pathology and Bacteriology, Materia Medica, Experimental Therapeutics and Pharmacology, Anatomy and Physiology, Hygiene and Chemistry. The last chapter also takes into account the advances made in

Medical Jurisprudence.

The editorial staff of the "American Year-Book of Medicine and Surgery"—twenty-eight in number—represents some of the best medical talent in this country, the mere mention of their names—Pepper, Keen, Hirst, Baldy, Starr, Hardaway, Gibney, Burnett, Guiteras, Ingals, Da Costa and Leffmann—being a sufficient guarantee of the character of the work they have done. We notice, with pride that two Cleveland medical instructors, Drs. Hamann and Stewart, appear among the departmental editors of this stupendous work, to these gentlemen having been allotted the sections on Anatomy and Physiology respectively. That they have creditably performed their tasks, no one will gainsay.

The work is replete with original and selected illustrations skillfully reproduced, for the most part in Mr. Saunders' own studios established for the purpose, thus ensuring accuracy in delineation, affording efficient aids to a right comprehension of the text, and adding to the attractiveness of the volume. The index is very full and complete, comprising some fifty-five three-column pages.

MANUAL OF THE PRACTICE OF MEDICINE. By George Roe Lockwood, M. D., Professor of Practice in the Woman's Medical College and in the New York Infirmary; Attending Physician to the Colored Hospital and to the City (late Charity) Hospital; Pathologist to the French Hospital, etc. 935 pages, with 75 illustrations in text and 22 colored and half-tone plates. Price, \$2.50 net. Published by W. B. Saunders, Philadelphia, 1896.

This, the seventh volume of Saunders' "New Aid Series of Manuals," forms a fitting companion work to Da





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Costa's "Manual of Surgery" in the same series, presenting as it does, the essential facts and principles of the subject with which it deals, in a concise and available form. The arrangement of the subject matter has been well carried out with an eye to practical utility. The classification adopted, with but slight modification, being that of Osler. The portions devoted to treatment are quite full and up to date. In fact, the book throughout, is thoroughly modern in its teachings and will well repay perusal.

An American Text-Book of Surgery: Edited by William W. Keen, M. D., LL. D., and J. William White, M. D., Ph. D. Forming one handsome royal-octave volume of over 1200 pages (10x7 inches), with nearly 500 wood-cuts in text, and 37 colored and half-tone plates, many of them engraved from original photographs and drawings furnished by the authors. Prices: Cloth, \$7.00 net; Sheep, \$8.00 net; Half Rustia, \$9.00 net. Second edition, revised.

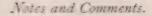
The profession will welcome with much satisfaction the new edition of this standard work. The extraordinary sale it has met with since its first appearance three years ago, and its adoption as a text-book in over sixty medical schools in this country, together with the large demand for it abroad, must be highly gratifying to the editors and their

colleagues.

In this revised issue we note the addition of a number of new topics necessitated by the great advance in surgery since the first edition was published, also that several of the other articles have been more fully treated than heretofore. Among the additions to the text we will mention, "The Effect of Modern Small-Arms in Military Surgery; a new section on Acromegaly; the Hartley-Krause method of removing the Gasserian ganglion; the osteo-plastic method of resection of the skull, with a number of additions to operations and methods in endocranial and spinal surgery; in the surgery of the chest, a description of Schede's operation; in the surgery of the digestive tract, Witzel's method for gastrostomy; the use of the button devised by Murphy in intestinal anastomosis; the consideration of retro-peritoneal tumors and of castration for enlarged prostrate; a chapter on Symphyseotomy; Macewen's method of compressing the aorta in amputation at the hip-joint, etc."

Many of the illustrations have been redrawn, and a number of new ones substituted for the old. Taking all in all, the American Text-book of Surgery has no superior in the English language, whether as a text-book for the student, or as a work for reference for the general practitioner or specialist. Certainly no medical library is complete without it.





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History of Anesthesia: or Painless Surgery. By William R. Hayden, M. D., New York: International Journal of Surgery. Price, 25 cents.

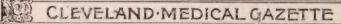
We are indebted to the Maryland Medical Journal for the following excellent review of Dr. Hayden's admirable little book:

For the second time the writer has enjoyed the pleasure and profit of reading this little volume, "written with an honest and unselfish desire to do justice to one whose inestimable services to humanity were persistently overshadowed by the most extraordinary perversion of facts." Should there be any doubt in the mind of the reader as he begins the perusal of this book his convictions as to the real facts in the case would be quite clear before finishing. Dr. Hayden has at great labor and expense as well as honest ingenuity presented to the world all that is worthy of consideration in establishing the points at issue, and we do not see how any candid mind can undertake to controvert the statements published. The simplicity of style and the logical deductions which characterize the contents, together with the recognition the author enjoys in the ranks of the profession through his valuable contributions to medical science, reenforce his arguments from beginning to end. Dr. Havden is a member of the Massachusetts Legislature for 1896, and the matter of honoring Dr. Morton will in all probability be brought before both houses for proper action. Physicians in all parts of the country will be glad to see justice done the great discoverer and demonstrator.



Removal.—Dr. John Eliot Woodbridge desires to announce to the medical profession that for convenience in responding to consultation calls, he has removed his office from Youngstown, Ohio, to No. 637 Prospect Street, Cleveland.

The Alienist and Neurologist.—Correspondents will please address all communications of an editorial nature to Dr. C. H. Hughes, and all communications of a business nature to the Alienist and Neurologist. Offices, 3857 Olive St., St. Louis, Mo., U. S. A. Please note change of address.



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Semi-Centennial Celebration of the Discovery of Anesthesia. The Massachusetts General Hospital, Boston, will make a grand demonstration on the 16th of October, the semi-centennial of the discovery of anæsthesia, in which they will be aided by the great body of the medical and dental profession of the State.

Personal.—The friends of Prof. Horatio C. Wood will regret to hear of a serious accident which occurred on the 16th inst., while he was riding his bicycle on his way to his afternoon lecture at the University of Pennsylvania. turning out from the track to avoid a car, he fell heavily and was run over by a carriage. It was found that he had received a scalp wound and contusions of the body, but apparently no bones were broken. He soon regained consciousness and was taken home. It is hoped that he will be out again in a few days. - The Journal.

Bill Nye on the Meanest Man Alive.—Every periodical now and then gets one of its copies back with "refused" marked on the cover. We think Bill Nye was about right when he said: "A man may ride on the back coach of a railroad train to save interest on his money till the conductor gets around, or stop his watch at night to save wear and tear, or leave his 'i' or 't' without a dot or cross to save ink, or pasture his mother's grave to save corn; but a man of this sort is a gentleman compared to the fellow that will take a paper two or three years, and when asked to pay for it puts it back in the office and has it marked 'refused.'

Cleveland Medical Gazette.—Gentlemen:—Inclosed please find draft for two dollars, for which please renew my subscription to the GAZETTE for 1896. I hold receipts from you up to that time, and if your September offer holds good, I shall expect one of the Boston Binders, as this pays my subscription in advance. I could not well get along without the GAZETTE, as I hear so often from my old friends and acquaintances in its pages. I was born and raised in Brecksville, and Dr. W. A. Knowlton whom you so often quote was my preceptor. I remain respectfully

Your well wisher,

DR. F. H. SNOW.

. Dr. Wm. McMichael, formerly house physician at the Cleveland General Hospital, has located at Glenville, O.

Dr. Geo. M. Frost, late House Physician at the City Hospital, is located at the corner of Cedar and Streator Avenues.

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The Semi-Annual Meeting of the Nevada State Medical Society was held at Virginia City, Nevada, Jan. 13, 1896. Dr. P. T. Phillips was elected President for the ensuing year. Dr. Phillips graduated from the Medical Department, Western Reserve University, in 1889, and practiced in Huron County, O., until three years ago, when he went west, and it appears is growing up with the country.

Dr. Henry W. Kitchen left January 10 for a trip through Mexico.

Orificial Surgery and Orificial Surgeons.—The Maryland Medical Journal is regularly in receipt of the *Journal of Orificial Surgery*, which is published by several homeopathic physicians in Chicago. By reference to the advertisement of the Chicago Homeopathic Medical College, one of the editors is seen to be Professor of Orificial Surgery, and the other subscribes himself as a general practitioner

and orificial surgeon.

The specialty of orificial surgery is not recognized by the regular medical profession, or at least not under this title, though it appears to occupy a prominent position amongst the homeopaths. The term orificial surgery naturally has reference to the surgical maladies occurring at the various orifices of the body, but from the perusal of the transactions of the eighth annual session of the American Association of Orificial Surgeons, there is room for doubt as to the scope of orificial surgery, and as to the functions of

the orificial surgeon.

As might be expected, rectal surgery claimed much of the attention of the convention, and gynecology came in for a full share of consideration, but many other subjects likewise were discussed by the "orificial surgeons" present, such as the relation of the sexes, married and otherwise, sexual perversion, and the instruction of children in regard to "where little babies come from." One "orificial surgeon," a lady, explained how she had taken a week's vacation in the country, in order to talk with her two children, nine and seven years of age, "as to where the little ones came from." Another bluff surgeon related how he had talked to his boy, who was ten or eleven years of age, about these matters, but found that the boy "knew more about it than I did, and then I thought I would let the young one take care of himself."

Leaving this interesting subject, it is found that these orificial specialists are engaged with weighty anatomical and physiological problems, such as the functions of the solar plexus. One orificial physiologist finds that it is "the seat



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of the emotions and affections." "If you feel sorrow, it is there; if you rejoice, it is there also—it is not in the mind, the mind is simply a reasoning organ." Whilst it is admitted that many people have a great affection for their gastronomic centers, science does not teach that this plexus is actually the seat of joy, nor that sorrows reside in those myssterious regions, except when certain qualms of conscience resulted from a too liberal indulgence in watermelons, cucumbers or clams.

Orificial surgery has a very wide field of usefulness, in the cure of locomotor ataxia, gall stones, cancer of the uterus, enlargement of the prostate, piles, etc., but the most remarkable application of the art is recorded in a short paper entitled, "The Dead Resurrected by Anal Dilatation." Some years ago a prominent physician of this city, whilst spending his vacation at the seashore, met a female homeopathic doctor, who immediately began to descant upon the great superiority of her system of practice over the "allopathic" method. The Baltimore practitioner congratulated the homeopathic sister upon her improved and satisfactory method, and acknowledged that, in spite of all his efforts, his patients would die. It is probable that the lady doctor was an orificial surgeon and it is possible that she employed anal dilatation to resurrect the dead or at least to snatch her patient from the very jaws of death.

To return to the marvelous case recorded, a California "orificial surgeon," in an ecstasy of admiration, exclaims, "I am proud to report that the knowledge of orificial surgery has given a human being a chance to gladden a mother's heart, and perhaps grow up to be a useful woman." The facts in the case are as follows: After a tedious labor, the child is delivered with forceps and in an asphyxiated condition. The physician, after cleaning the mouth, throat and nostrils of secretions, dilated the sphincter ani, and then performed artificial respiration. At the expiration of thirty minutes he was rewarded by seeing the child draw its first breath, and an hour later its color was normal and resuscitation was complete.

Time and space are wanting in which to note many other orificial facts learned from the journal in question; there may, however, be mentioned a few homeopathic and "orificial" remedies employed in the after-treatment of various "orificial" operations. Morphia sulphate grains \(\frac{1}{4} \) hypodermically to relieve pain. Compound liquorice powder,

Garfield tea, cascara, and salts for catharsis.

Many other remedies are suggested and all are catalogued in the specialty of orificial surgery. Truly this is an age of advancement and there is much to be learned.—

Maryland Medical Journal.





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The Mosgrove Bill.—As we go to press, we learn that the Mosgrove medical practice bill has passed the house of the Ohio state legislature with only one dissenting vote. This is the tactics of the opponents of medical legislature. It will be remembered that the senate of the last legislature passed the bill unanimously, and it was snowed under in the house. It is altogether probable that it found that less money would buy up the senate than the house this time. We hope Senator Avery and all honest members of the upper house will do yeoman's service in order to secure the passage of this bill which is in the interest of humanity, a higher civilization and the best interest of every citizen of

The Times and Register, not to be outdone by its migratory Philadelphia contemporaries, hies itself off to Boston, where it is to be edited, though it will be published, or rather printed in Philadelphia. It henceforth will appear bi-weekly—twenty-six times a year.—Buffalo Med. Jour.

the State of Ohio, with the exception of a few unscrupu-

lous quacks who traffic in human life for sordid gain.

The Western Reserve Medical Journal of this city has suspended publication.

Undesirable Immigrants a Menace to the Future American Physique.—Dr. J. W. Achorn (Dietetic and Hygienic Gazette, June, 1895,) relates some interesting facts as to the physical condition of some of the immigrants admitted to this country from abroad, practically without examination, facts which should claim serious consideration by our national law-makers. Dr. Achorn says that a steamer on which he returned to this country from Europe, brought 600 Italians, Hungarians, Polish and Hungarian Jews, Russians, Bohemians, Arabs, and other steerage passengers, among whom were seven lame and eighteen deformed. He examined 153 of the total 600, and found four cases of advanced phthisis, six of inherited syphilis, two of fetid abscess, three of syphilis, one of delirium tremens, nine of rickets, "any number of skin diseases, parasitical and otherwise," two of favus of the scalp, and three of chronic ulcer of the leg. Only one of the 600, a man with cataract of the left eve due to syphilis, was refused admission to the country. - American Journal Med. Sciences.

Dr. Dudley P. Allen has returned from a few weeks visit to Bermuda.

Dr. W. C. Berlin was recently appointed Demonstrator of Chemistry in the Medical Department of the University of Wooster.





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Is it a Case for Damages?—A St. Louis surgeon has been sued for \$15,000 damages for the publication of the portrait of one of his patients in connection with the report of the case. He was, to be sure, granted the privilege of taking a photograph of the child, but for his personal use only. There was no permission sought or given that it should be published.—Mēdical Age.

Abrasion of the Teeth, and the Tooth-brush.—There is much scientific explanation (so-called) of the abrasion of the teeth, but in nearly every case it is from the misuse and overuse of the tooth-brush, and still more specially from the tooth-brush and tooth-powder combined.

It is a shame to see the destruction of so many sets of nice teeth from this cause, and that of people who think they are taking special care of their teeth. It is still more specially a shame and a disgrace to the dental profession, because nearly all this sacrifice of beautiful teeth is by order of some of our most popular dentists.

Yes, the great and chief blame is with the dental profession, and the more prominent the dentist recommending such a practice, the greater the blame and disgrace, because his advice is so implicitly trusted, and so conscientiously and thoroughly followed.

There is no sense or reason in the advice. Too many dentists are like a flock of sheep following a leader heedlessly. If they stopped for one moment to reason on their course, they would be ashamed of themselves.

Suppose we should use such a stiff brush on our flesh, or on our nails as many do on their teeth. What would be the result? Their destruction, of course. And how we would laugh at one who excused thouself because thou could not

keep thon's skin or nails clean in any other way?*

The teeth need no scouring to keep them clean; they only need cleaning. If a soft brush and clean water is not enough, add a little soap. We have seen "esthetic," "fashionable" people scour their teeth with a stiff toothbrush and powder so frequently and harshly that their teeth were worn into deep furrows, or the entire outward surface worn nearly to the pulp. Yet some of these very cleanly persons never wash their face properly. They allow the pores of its skin to be all spotted over with minute "black worms," as they are called, and this for fear of

^{*}Thon is the euphonious word proposed as a common pronoun to represent persons, to avoid the awkward necessity of using "his or her," "himself or herself," "he or she," etc., as it would be in the above case—"who excused himself or herself because he or she could not keep his or her skin or nails clean in any other way." It is an innovation, but why should we reject an innovation when it is a good thing? Why should we not improve our language by a new word when it is so easily done? We follow our leaders in the spelling and use of words as blindly as we follow the pernicious habit of scouring our teeth.





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"spoiling their complexion." When I told a young lady once that her face was dirty, she indignantly resented it; but when I rubbed a portion of it with her handkerchief wet with a little borax dissolved in diluted alcohol and showed her the dirt, and the beauty of the part thus cleaned, she was astonished. Though she had ruined her teeth by excessive scouring, she had not washed her face for six months. A little water and wiping with a soft towel is all it had seen. No wonder the pores of the skin were all full of dirty matter, and that she was "dark complexioned" when she could have had a beautiful, translucent, shining skin.

Dr. Bonwill tells of two wealthy bachelor brothers who came to him for advice for abraded teeth. Their teeth were ruined by this foolish scouring. They had been advised that their teeth were soft, and that the only remedy was the thorough use of a stiff brush with plenty of powder. What nonsense! They were now so nearly worn to their pulps by this treatment that it was necessary to plate them with gold over their entire labial surface, and this with a skill few dentists possess, and at an expense few patients could

afford.

We know that the excuse with these misguided dentists is that these harsh brushes and powder are necessary to neutralize acidity and to harden and polish the teeth. But with the frequent use of simple water and a soft brush, no such acid can be found, and seldom even a softening of their surfaces.

The teeth are covered with a skin, as the flesh is, and it should be kept on them with scrupulous care. It is both their beauty and their protection. The tooth-brush, therefore, should be soft, and so constructed that the bristles will enter between the teeth, and reach all their surfaces. Nature itself has provided a tooth-wash that is better than any we can make; it is the saliva, which the system prepares for the very purpose of neutralizing acid and alkali that may be formed in excess. If pathological conditions injure this fluid, and prevent its normal action, we must, of course, assist it, but this is a rare necessity. Simply keep the teeth clean.—Items of Interest.

A Well-known Philadelphia Physician, whose name need not be mentioned for obvious reasons, is in a fair way greatly to increase his already large income through a discovery which he claims to have recently made. The doctor comes of good old stock, and is quite a figure in Philadelphia's most exclusive society. His discovery, brought about by experiments made upon his own person, is nothing less than the existence of a distinct and separate



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corpuscle of blue blood. When the result of his researches gets noised about, the doctor will doubtless be overrun by Sons of the Revolution, Colonial Dames, and members of other similar patriotic organizations in which ancestry is necessary. In the near future we may expect to hear: "I say, old chap, come take a peep through my microscope and see my blue blood-corpuscle."—Medical News.

A Cause of Prostitution.—The insufficient wages paid by many of our leading merchants to young women in their employ is unquestionably a strong ætiological factor in the development of prostitution.—(Doctor Denslow Lewis, in Medical Record.

Dr. C. E. Slocum, of Defiance, Ohio, one of the trustees of the Ohio Wesleyan University, recently donated \$50,000 to that institution. Dr. Slocum expresses himself very hopefully as to the prospect of the Medical Department.

Alleged Body Snatching.—The Janitor of the Medical Department of the University of Wooster, has been arrested on the charge of grave robbing, and was bound over to the grand jury. It is to be regretted that sufficient dissecting material cannot be secured in a legal manner.

Dissecting.—In old Egyptian times, about the time of Rameses, it was a crime punishable by excommunication and death to in any way mutilate the body of a deceased person. The heart was especially sacred and it was only by deception that the first scientific knowledge of the circulation was ascertained. In those times medicine was indissolubly connected with priestcraft and superstition, penance and perfumed ointments constituted the practice of the day. The science of medicine, or at least the knowledge of anatomy, physiology and allied subjects has reached a point of high development, but the old superstition still persists. The profession is, by public opinion, as much barred to-day from a legitimate pursuit of knowledge as in the old Egyptian times.

The idea of dissection is as horrible to the people to-day as it ever was. Mutilation of the dead is much more horrible to the common mind than torture of the living. While vivisection in certain sections and by certain classes of people, is denounced and opposed, it does not meet with the intense prejudice, nor do those who practice it meet with the persistent and unjust persecution that is forced upon the man who attempts investigation upon a human cadaver.

Even those legal enactments which have provided for the scientific use of pauper and unclaimed bodies do not in

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any sense alleviate the burden of public censure, nor in any degree relax the persecution to which all medical colleges are subject.

To avoid this as much as possible, colleges have, as a rule, conducted this part of their work in secrecy, thereby subjecting themselves and their students to all kinds of suspicion. This very suspicion and the finding of some stolen bodies in different institutions, has led to the various criminal prosecutions which have been recently instituted.

It strikes us that it is high time that medical colleges should recognize and demand their rights. Let them publicly claim every body to which they are legally entitled, and let their every act be as open to investigation as the proceedings of any other college. Of course we do not expect censure to be lessened by this course, but the only way to establish their rights is to claim and maintain them.—

Kansas Medical Journal.

Consulting Practice.—The N. Y. Medical Record seeks to reassure doubters as to the prosperity of New York consultants. It says:

Where the consulting practice diminishes in one direction it increases in another, and, taking it upon the whole, we presume that there is probably more consulting work done now in New York than there ever has been in the past history of the city. The work of the general consultant, who is called upon for diagnosis and help in all kinds of diseases, has certainly not fallen off, as those who are acquainted with the few men in this city who make general consultation a specialty can abundantly testify.

It is gratifying to learn from the same authority that general practitioners are "doing as well as can be expected."

—American Medical Review.

A Japanese Surgeon Honored by the Emperor of China.—The surgeon to the Mikado, who dressed the wound of Li-Hung-Chang after the attack made upon the Chinese plenipotentiary at Simonoseki, has at Li's request had the Order of the Double Dragon, Third Civil Class, conferred upon him by the Emperor of China.—N.Y. Medical Record.

Dr. John A. Dickson, of Ashtabula, has the sympathy of the entire medical profession in the loss of his wife, who died at Lakeside Hospital, Friday, January 31st.



IN REPORTING THE CASE OF A WOMAN SUFFERING FROM NEOPLASM IN THE STOMACH, DR. ERNESTO COSTA, OF ALAGNA, ITALY, says: "One can easily imagine the intense pain which entirely prevented her sleeping. I tried chloral and sulfonal, and although the latter answered fairly well for a time, it soon became necessary to discontinue it. I then administered Bromidia with the following results:

1. It produced refreshing sleep.

2. It soothed the pain, and thus rendered alimentation possible.

3. Although given in frequent, and sometimes in tablespoonful doses, it never produced any nervous or cardiac disturbance."

Messrs. Theodore Metcalf Co., Boston, Mass. Gentlemen: I have received such great benefit from your new medicine, Kola-Koloid, that I cannot refrain from sending you an unsolicited testimonial. I have tried it in headache and nervous dyspepsia, and it has never failed to afford relief. For the horrible black despondency attendant on nervous prostration, it is a magical remedy. It has controlled and regulated the action of my irritable heart as nothing else ever did. Last and greatest. I have used it for fatigue and exhaustion following overdosing, and found myself so refreshed and reinvigorated as to be ready for any new exertion. Best of all, there has never been the slightest evil after effect, but a permanent gain in strength and general health. Very sincerely yours,

R. Y. E. Johnson, M. D. Pardeeville, Wis., Aug. 12, 1895.

ARTISTIC. Our readers will notice the Artistic advertisement in this issue of "Dioviburnia," the most powerful uterine tonic attainable, Anti-Spasmodic and Anodyne, which has simplified the Practice of Gynecology. A reliable and trustworthy remedy for the relief of Dysmennorrhea, Amennorrhea, Mennorrhea, Leucorrhea, Subinvolution, Threatened Abortion, Vomiting in Pregnancy and Chlorosis, directing its action to the uterine system as a general tonic and Anti-Spasmodic.

This product being manufactured by the well-known Dios Chemical Co., of St. Louis, is sufficient guarantee of its

reliability.

PRE-SENILITY. OVARIAN PAINS. CHRONIC ENDO-METRITIS. I have been using Sanmetto for the past two





RETRO-PHARYNGEAL ABSCESS.*

BY C. P. AMBLER, M. D., CANTON, O.

Formerly Laryngologist and Rhinologist to Winyah Sanitarium, Asheville, N. C.

By retro-pharyngeal abscess, we understand a collection of pus in the loose areolar tissues which connects the walls of the upper pharynx with the underlying muscles.

The condition has long been recognized. Galen (second century Christian Era) refers to a case as occurring under his own observation.

Abercrombie (1819) reported three cases occurring in children, and he appears to have been the first to recognize the idiopathic form.

Mondiere (1842) reported a number of cases, gathered from various sources, and presented the subject so clearly that his theories are still accepted.

The etiology is often so obscure that the most conflicting opinions may be given. Text-books say it can be either a disease in itself or simply a symptom.

The older writers, among whom were Barmhuger and Dupuytren, believed it always to be secondary from caries of the vertebræ, or the occipital bone. This we now know is not the case, and while we have progressed in our knowledge

^{*}Read before the Canton Galen Club, Sept. 2, 1895.





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of the etiology, we are at the same time frequently satisfied to call the case "idiopathic." There may be idiopathic cases, but I believe the old teaching is better to be followed than to hide our ignorance under such a term when applied to abscesses.

The affection is more commonly met with in children than in adult life, and where occurring in the former is generally associated with strumous diathesis.

It has been observed as following the exanthemata, fevers, and especially diphtheria, as a secondary deposit and where associated with foreign bodies.

As stated above, the strumous diathesis can generally be traced in children, but we find cases without any apparent cause, idiopathic we are compelled to say, even if we do not altogether believe in this term when applied here.

As a symptom concomitant with caries of the spine, we will not more than allude to the diagnosis, as these cases come under the province of the general surgeon, or orthopædist.

When the result of caries, the attack is very insidious and the tumor in the pharynx does not show the acute signs of inflammation observed in phlegmon.

The special predisposition to glandular inflammation in young subjects is too well known to require comment. Just why the glands in this region should be affected is uncertain; it has been suggested that difficult dentition, caries of the teeth, adenoids or chronic nasal catarrh may cause the irritation.

The concatenate group of lymphatics extending on either side of the pharynx from the vault to the base of the tongue, is one of the most complicated, and is certainly more exposed to outside influences than any other group in the body.

Why the tonsils, as one of this group, should be affected by rheumatism, is still a mystery; that the rheumatic predisposition seems to have no influence upon the other glands of this group is a settled fact.

That the complicated and rapidly developing glands of the child are easily and frequently interfered with in the performance of their function, from their exposure to changes in temperature, extremes of humidity, inspired dust





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or irritating gases, I firmly believe. The influence these repeated exposures would exert upon the circulation may prevent the proper nutrition of the gland.

Ziemssen recognizes a connection between retropharyngeal abscess and nasal disease. Discussing nasal disorders, he says: "Swelling of the lymphatic glands is another complication occurring especially in scrofulous persons." He also cites Edmund Simon's description of the course of the lymphatics in the locality as being such "that the main trunks of the same, which open into the lymphatic glands, run in a sort of furrow between the forward end of the Eustachian tube and the rear end of the turbinated bodies. Here they form a small net work, from which two or three trunks of about one millimeter in diameter arise. They run obliquely backward and outward between the levator and tensor palati mollis muscles, and after they have passed these muscles, one branch passes along the external wall of the pharynx, between the internal carotid and the stylo-pharyngeas muscles, and after various windings, terminate in a gland in front of the vertebræ. Hence, retropharyngeal abscess may arise in consequence of disease of the nose."

In this case, as in caries of the spine, foreign bodies and caries of the teeth, the condition is but a symptom and not a disease, but as the greatest danger is to be feared from the symptom rather than from the cause, the former requires and commands attention.

Out of 204 cases reported by Bokai, 179 are given as idiopathic, in which he was unable to assign any definite cause to the abscess.

It certainly appears remarkable that out of so large a number of cases such a percentage should occur in which no definite cause could be determined.

Admitting that a scrofulous or tubercular diathesis predisposes to suppuration in the lymphatic glands, from my experience, I believe the local manifestations are aggravated in this locality by the exposure to outside irritations. The condition is essentially a disease of childhood; those conditions which lower the vitality and predispose to local suppuration points, manifest themselves through that most



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vascular and easily affected system, the lymphatic; the exposed position of the lymphatics in the upper respiratory tract leaves them the ones more liable, hence we have a locality suffering from all forms of acute inflammatory conditions from simple catarrh of the mucous membrane to suppuration of the glands.

That the disease is not confined to childhood is proven by the writings of Allen, Agnew, Bosworth and others.

In those cases occurring in adult life the etiology can more often be satisfactorily explained. The lymphatic structures being less vascular and fully developed, probably accounts for the less frequent occurrence; when it does occur, however, it is invariably in connection with some chronic ailment of the upper respiratory tract, together with some systemic condition which has lowered the vitality of the patient.

Lewandowsky reports a case following scarlet fever in which the throat manifestations were slight, while those in the nose were more marked. He traces a connection between the lymphatics of the nasal chambers and those of the pharynx, and attributes the abscess to the disease of the nares rather than to an idiopathic condition of the pharynx itself.

Pepper reports a case following diphtheria in which the abscess did not develop for six weeks after recovery from the diphtheria.

Petrunti reports a case in the adult which he attributed to "catching cold." Rather an indefinite etiology.

The clinical history differs widely in the adult and childhood. In the latter, as we have remarked, the disease is a manifestation of strumous diathesis, the suppuration being analogous to that which frequently occurs in the cervical region of such cases.

The child suffers from general malaise, is restless, has loss of appetite, loses flesh, develops a slight cough, and may thus go on for several days without any local manifestations of a morbid process. About the time the cough appears, pain will be complained of on deglutition and the voice acquires a peculiar pitch, which Duparcque compares to the cry of a duck.



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Deglutition soon becomes impossible, and on examining the throat, the tumefaction will be found. Fever accompanies the process, and there is more or less external swelling around the angles of the jaw according to the locality involved.

The situation of the abscess has everything to do with the amount of dyspnœa present. If situated high up, pain comes on early, and dyspnœa will not be marked unless the tumor becomes very large.

If situated low down, pain will be delayed from the tumor being in yielding tissue, but the dyspnæa will be more marked on account of encroachment upon larynx and trachea.

The dyspnœa is of inspiratory and whistling character unless the accumulation is large, and both inspiration and expiration are interfered with.

Bosworth mentions a peculiar case in which "the abscess forming low down in the post æsophageal space, deglutition was accomplished with comparative ease, dyspnæa becoming a marked symptom."

This could be explained by the fact that a bolus of food passing into the esophagus, crowds the soft yielding pus sac to one side, while the swelling remains as an obstruction to breathing.

As a rule, the abscess forming low down is secondary to caries of the vertebræ. Matthews states that the formation of pus low down in connection with holding the head to one side is pathognomonic of caries of the spine.

A constant throbbing pain is complained of in all cases, and the movement of the head is very restricted. The sac varies in size from a hazel nut to a hen's egg, but exceptional cases attain enormous dimensions.

Rigors, brain symptoms, delirium, convulsions and coma are not infrequent; especially when the tumor is situated high up near the base of the skull; pressure upon the vagus and spinal accessory nerves also causes the most distressing symptoms.

Flemming reported a case in which the child, which was comatose when lying on its back, recovered consciousness when raised to a sitting posture.



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The abscess which forms from caries develops very insidiously, without or with but little fever, and considerable accumulation may be present before the case will be diagnosed, although previous symptoms of spinal disease would lead us to anticipate the pus.

In the adult, a retro-pharyngeal abscess makes itself known at the outset; presenting more the symptoms of acute phlegmon, early fever, pain and swelling.

It can be regarded as an acute inflammatory process, something of the nature of quinzy, without the rheumatic factor; temperature rises rapidly as high as 102 F. and over. Pain is constant, and if the case is left to follow its own course, becomes terrible as the time approaches for spontaneous rupture.

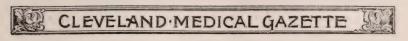
The general health may not be impaired otherwise than what would be incidental to several days without food and constant suffering.

As in children, deglutition and speech are interfered with and may become impossible, liquids being regurgitated through the nares.

While the abscess is forming, a frothy mucus constantly accumulates in the pharynx, becoming very annoying to the patient, as the muscular effort to expel the same greatly increases his suffering.

Nothing much can be added to the pathology over what has already been alluded to, remembering that in the adult an abscess belongs essentially to the cellular tissue, while in the child, suppuration of the cellular tissue is comparatively rare. As Bosworth says, "in the child, the lymphatic tissues are in an active state of development and prone to inflammation. Whereas, in the adult, these tissues have undergone a certain retrograde metamorphosis of the nature of atrophy, as the result of which this liability to morbid activity is markedly lessened."

The diagnosis in the adult presents no special difficulty when the parts can be thoroughly illuminated and inspected; remembering that we may have the pouched appearance without marked symptoms of acute phlegmon, due to the deep seated location of the process, or from the pus having burrowed. Palpation with the index finger in connection



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with a probe in the other hand being sufficient to determine pus if in any considerable quantity.

In child life the symptoms of acute inflammation are often entirely wanting; a slight degree of chloroform anesthesia being essential for diagnosis, and before operating possible aneurism must be excluded.

Duke reports a case in his practice where an aneurism was opened and the life of the child was only saved by ligation of the common carotid.

If the symptoms are marked, it certainly is good conservative surgery to first employ a hypodermic or a small aspirating needle.

Mistakes in the diagnosis do occur. The condition being mistaken for croup, bronchitis or ædema of the glottis. This should not occur with a thorough examination and inspection of the throat.

If of the phlegmonous variety, the abscess will run its course in from five to twelve days, opening spontaneously and involving but little more danger to the patient than an ordinary quinzy. When due to strumous diathesis and involving the lymphatic structures, or as a result of caries, the prognosis is more grave; in the latter especially deformities and even death are not uncommon. In the former the patient rarely dies, provided the diagnosis is made in time and the proper procedure carried out.

Carmichael, Gautier, Bokai and Lidell report fatal cases from hæmorrhage of the carotid and its branches; the walls of the vessels having been eroded.

Schmitz reports a fatal case from ædema of the glottis, while Gaupp and Justi cite cases where in spontaneous rupture the pus made its way into the larynx, producing fatal results.

Dr. Biggs presented a case before the New York Pathological Society, April 24, 1895. This patient, age 18 months, had been a coroner's case in which the diagnosis had been made of diphtheria. At the autopsy, the mucous membrane of the pharynx and larynx was found normal, and there was no evidence of diphtheria. On removing the larynx, pus escaped from the retro-pharyngeal region, and examination revealed an abscess about three centimeters in diameter.





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There had been no rupture of the abscess during life and death was evidently due to the projecting forward of the pharyngeal wall of the abscess.

As in quinzy, children especially should be watched while sleeping, or from position alone the case may result fatally by the pus finding its way into the larynx.

A simple inflammatory phlegmon of the connective tissue or an inflamed gland may subside without pus formation and without even interference; remembering this, it is well to attempt to bring about resolution of the inflamed foci-

Pepper advises, if no fluctuation be present, the administration of full doses of iodide of potash coupled with frequent applications of a solution of iodine in glycerine (M. X. to dr. 1 glycerine.) The throat must be watched, however, from the tendency of the iodide of potash to cause ædema. Should infiltration of the tissues of the pharynx appear, the drug should be stopped and the infiltration reduced by applications of 10% solution of cocaine, repeated every hour.

If fluctuation is found, no matter what the cause of the abscess, where located, what the age of the patient, whether of lymphatic origin or a simple phlegmon, evacuation is indicated.

In ordinary cases, this can easily be accomplished, but when the pus is low down, parts greatly swollen, and the mouth opened with difficulty, it may become almost an impossibility, without opening externally; the latter should only be attempted when there is immediate danger to life.

Petrunti in one case dissected down along the anterior border of the sterno mastoid and evacuated twelve ounces of pus.

When impracticable to open through the mouth, Mackenzie advises the administration of emetics, in hopes that the sac may rupture during vomiting.

The quantity of pus present must determine the method of evacuation; if small in amount, free incision with a bistoury is the most satisfactory method, care being taken to wrap all of the blade, except that which is intended to enter the tissue.

If a large amount is present, it might be extremely



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dangerous to make a free incision and allow the pus to suddenly pour out.

Dr. Johnson advises making the incision as high up as possible in order to avoid this danger. A much better plan would be to draw off enough with a trocar to relieve the pressure and then make the usual incision. Another satisfactory method is to first open with a narrow knife, simply making a puncture, and afterwards enlarging the wound; in either case the wound should be low down to secure drainage. If so made, the act of deglutition compresses the sac downward, keeps the wound open and the contents press out.

If in a child, a few whiffs of chloroform are almost a necessity, while in the adult the part can be painted with a 10% solution of cocaine and the cutting is almost painless. The cocaine must be applied sparingly though, or we may anasthetise the larynx and facilitate the entrance of pus.

The external applications of poultices and hot fomentations are said to do very little good. I have found they are agreeable to the patient and somewhat relieve his suffering.

Iodine externally, after evacuation, will greatly facilitate the reduction of induration and congestion.

Opiates should be used, but sparingly, especially about the time the abscess is ready to be evacuated. The after treatment is the same as in the scrofulous and anemic. Cod liver oil, hypophosphites, iodide of iron, and above all, good nourishing food taken little at a time and frequently.

Rectal alimentation must be carried out in cases that are of long duration.

Tracheotomy is rarely called for, as the operation carried in the proper direction would evacuate the pus and relieve the dyspnœa. It is, however, the best and only procedure in marked ædema of the glottis.

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GOUT.*

BY D. S. HANSON, M. D., CLEVELAND, O.

The first knowledge I ever gained of gout, was when a school-boy, and was learned from reading a poem written by Byron, entitled, "The Gouty Merchant and the Stranger," and reads as follows:

In Broadstreet building, on a winter night,
Snug by his fire, a gouty wight
Sat all alone, with one hand rubbing
His feet, rolled up in fleecy hose,
With t'other he'd beneath his nose
The Public Ledger, in whose columns grubbing,
He noticed all the sales of hops,
Ships, shops and slops;
Gum, galls, and groceries; ginger, gin,
Tar, tallow, turmeric, turpentine and tin;
When lo! a decent personage in black,
Entered and most politely said:

"Your footman, sir, has gone his nightly track
To the King's Head,
And left your door ajar, which I
Observed on passing by;
And thought it neighborly to give you notice."

"Ten thousand thanks; how very few do get, In time of danger,
Such kind attention from a stranger!
Assuredly that fellow's throat is
Doomed to a final drop at Newgate:
He knows, too, (the unconscionable elf),
That there's no soul home except myself."

Indeed, replied the stranger, looking grave, Then he's a double knave; He knows that rogues and thieves by scores Nightly beset unguarded doors."

"And see, how easily might one
Of these domestic foes,
Even beneath your very nose,
Perform his knavish tricks;
Enter your room as I have done,
Blow out your candles—thus—and thus—
Pocket your silver candlesticks,
And walk off—thus."

So said, so done; he made no more remark, Nor waited for replies, But marched off with his prize, Leaving the gouty merchant in the dark."

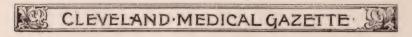
*Read before the Cuyahoga County Medical Society, January 6, 1896.



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Evidently, Byron's English Merchant was unable to use his feet, but fortunately, our American merchants are rarely afflicted in a similar manner. I began practice with the preconceived notion that I would often run across the inflamed great toe in wine drinkers, and those addicted to high living; but in this, as in many other ideas in medicine, formed without the guide of experience, I have found delusive, for in an experience of twenty years I have hardly seen a single case of typical uncomplicated, acute gout. And even the deposits of the urate of soda in the ear, joints, cartilages and cellular tissue that I expected to be able to frequently discover, has been like the proverbial hen's teeth -"scarce to find." On the other hand, that mongrel disease, rheumatic gout, both acute and chronic, always with a tendency to affect the smaller joints, I believe to be a very common disease in this region. In many of these acute cases, I have tried the salicylates, both with and without colchicum, and find the former to act better, both in relieving symptoms and preventing relapses.

Much work has been done on the ætiology and pathological anatomy of this disease, the two factors to which I wish to especially draw your attention. When speaking of the cause, the conclusions that have most generally been accepted are, that it is due to an imperfectly oxidized plasma, either too much food is taken, so that the digestive organs can not properly digest it, or else the digestive functions are so deranged that even a small quantity can not be taken care of; all of which is easily said, but leaves a poor impression on one that is after exact knowledge. Where do we find it?—with luxury? Yes; but also with misery—with the rich wine-drinker hardly more frequently than with the lower class of beer-drinkers with their filth, poor hygiene and bad air; for the majority of mankind are much more particular about what they eat and drink than about the air they breathe, while the latter is used much the more copiously, and when impure, with effects just as bad. We are safe in saying that imperfect metabolism of food is the prime factor in ætiology. This is most strikingly demonstrated by the fact that the young very rarely suffer from this disease. Why? Seemingly, because the grow-



ing tissues demand greater food supplies, metabolic processes are more active, elimination more perfect; while in the adult, development is at a standstill, only waste has to be compensated for, and this depends largely upon exercise, the eliminating organs have become weary from long use and do their work in a perfunctory manner, all of which can be easily seen and understood, and constitutes at least one fact to prove that this is a digestive disorder.

Garrod has maintained that gout is due to an increased formation and a decreased elimination of uric acid, and this excess circulating in the blood, gives rise to inflammation of, and death to, certain tissues, that the alkalinity of the serum is lessened, thereby favoring this deposit in parts where the circulation is sluggish. Ebstein agrees with this theory, but places less stress on the excess of uric acid. He was first to demonstrate the fact that the tissue upon which the urate of soda was deposited did not stain by the analine dyes, but remained as a light spot in the colored tissue, a characteristic sign of that form of death of tissue known as coagulation necrosis. The fact first pointed out by Garrod, that 30 % of his patients suffering from plumbism also had the gout, is thought to be due to the fact that lead is not well eliminated in anyone suffering from the uric acid diathesis. Later experiments dispute this. It is not thought that any specific combination or reaction between the uric acid and the lead takes place. Garrod furthermore claims that in the digestion of the carbo-hydrates, an acid fermentation is set up in those of a gouty diathesis, which favors the production of uric acid by diminishing the normal alkalinity of the serum.

Very recently, Noorden has arrived at the conclusion that the gouty condition is independent of the presence of uric acid in the blood; the tissue necrosis he ascribes to the activity of a hypothetic ferment, (just what that is, he does not explain), and he believes the uric acid deposited locally is formed at the necrosed focus.

Klemperer, in an essay read before the Berlin Society of Internal Medicine, describes some recent experiments he made to establish the relation between the uric acid in the blood and the tissue necrosis, and gave the following result: In a study of a number of individuals, including three



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persons in health, "a case of leukæmia, one of pneumonia, two of interstitial nephritis, and four of gout, three during a paroxysm, and one uræmic. In all the cases of gout, in the case of leukæmia, and in both cases of nephritis, comparatively large quantities of uric acid were found in the blood. In order to ascertain whether this was due to an excess of production or a diminished elimination, the urine in eight cases of gout placed under like conditions, was studied. In two, the daily amount was between 0.4 and 0.5 grammes; in five, between 0.5 and 1 grammes; and in one, between 1 and 1.2 grammes. No relation existed between the amount of uric acid present and the character of the disease. was shown that the amount could be increased by administering the thymus gland of the calf; this same effect has been produced upon healthy individuals. From the experiments, it was concluded that, when the functions of the kidneys were not interfered with, that there was no lack of elimination, but that the increased amount was due to increased production. The presence of similar amounts of uric acid in the blood of other than gouty patients, however, shows that this factor is not the essential cause in the production of gout. He also found that the solvent power of the serum did not differ materially in this and other diseases and in health, and in all it was considerable, much more than enough to dissolve the amount of uric acid present in any disease. He is therefore forced to the conclusion that the deposit of uric acid in necrotic areas of gouty persons is not due to its insolubility in the blood, but is to be explained by the fact that such tissues possess a greater chemical affinity for uric acid than does the blood.

Experimental observation also showed that, while the blood did show some diminution in its alkalinity during an acute paroxysm, this was not more than occurs in other conditions, and certainly not enough to account for the crystalizing out of the uric acid. In view of all the evidence the conclusion is reached, that in the gouty, certain unknown substances lead to inflammatory and necrotic processes in various tissues, and the necrotic tissue possesses the property of attracting from the blood uric acid when present in considerable amount. Sedentary pursuits and high living,





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also lead and alcohol favor their development and predispose to their activity. Klemperer also makes the statement that it is more probable that lead in some way increases the necrotic action of the uric acid, than that the lead prevents the elimination of the acid, or the acid that of the lead."

In studying its pathology, one is impressed with the fact that there is a certain bond of union between gout. rheumatism and rheumatoid-arthritis, and this is also true from a clinical standpoint. No doubt heredity plays an important part, but to think one inherits a gouty diathesis, simply because one or both parents have had an acid dyspepsia, reminds me of a certain surgeon that I have often heard lecture; in his clinic cases of ingrown toe-nail would often appear, his first question would be, Do you trim your nails? Always being answered in the affirmative; he would look up triumphantly and say, "I told you so," wholly ignoring the fact that other people trimmed their nails just as assiduously as these patients; so with the gouty, they often have dyspeptic parents, -so do other people if they live in a civilized country—for this dyspepsia is a civilized disease, metaphorically speaking. Another conclusion that I have been forced to, from clinical observation, is, that these cases of gouty diathesis are often very poor eaters—some of them scarcely eating enough to sustain life. I have two patients under observation at the present time of this character; one a man of about fifty years, who carries his lunch, and his wife often tells me that the dinner pail is as heavy at night as in the morning; his breakfast consisting of a part of a slice of bread and butter with a cup of tea; his dinner not much more substantial. The other, a lady of fifty-five years, very lithæmic, constantly suffering with muscular rheumatism, heart running at 90 to 96, weak rhythm, coated tongue, which alteratives and eliminatives do not influence to any great extent, who does not eat enough in two or three days to make one hearty meal. These cases are not of temporary duration, but have been under observation for years; a sclerosed condition of the arteries can not be detected in either case, neither is nephritis present. The contracted gouty kidney is said to be primarily due to sclerosis of renal vessels, and in some painful heart affections in those



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of middle life, one would do well to bear in mind the fact that they are not infrequently lithæmic in origin. Bulkley says in those above the age of puberty, the gouty diathesis is the cause of most of the cases of psoriasis, and often of eczema, and sometimes of many other skin diseases. Bartholow classifies lithæmia under the head of liver diseases, and the general opinion seems to be that it usually precedes an attack of gout, and the inference must be that if it is recognized and treated, sclerosed blood vessels and other gouty changes could be oftimes prevented.

Any student of medicine can readily appreciate the great difficulties encountered in the study of vital chemistry; the processes going on in the human storehouse are complex in the extreme, their products undergo rapid changes when withdrawn, which, of course, makes results misleading and uncertain, while examinations made while the products are in sutce, are impossible, while many of the constituents of the organism are entirely inaccessible—thanks to the microscope and modern methods of investigation for what accurate knowledge we have.

In saying a word further regarding the irregular manifestations of this disease, I will give Osler's classification which covers the ground about in the order of their frequency. (a) cutaneous; (b) cardio-vascular; (c) gastro-intestinal; (d) urinary disorders; (e) cerebral; (f) pulmonary; (g) eye.

To RECAPITULATE:

- 1. Gout does harm, not only to joints, skin, blood vessels and kidneys, but notably to heart, brain, nerves and other tissues.
- 2. Gouty, when acute, is rarely uncomplicated in this country, but is generally rheumatic.
- 3. The exact cause is not *definitely* understood, but is certainly in some way due to imperfect digestion.
- 4. Gouty changes are probably due to a pre-existing lithæmia, and to some unknown products that cause necrosis of tissue.
- 5. The best time to make treatment effective in preventing this tissue degeneration is during this lithæmic stage.





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6. The best treatment, both for the lithæmia and subacute and chronic gouty manifestations, are those measures
that increase oxidation and elimination; these are, increased
physical exercise, hot bathing, milk and alkaline waters
taken freely, the avoidance of an excess of meat, fats, alcohol
and carbo-hydrates, and finally administration of the thymus
gland of the calf, something I have only used in one instance,
and that for so short a time that I can not yet judge of its
effect. There are two things to especially recommend the use
of this gland, it is new, and comes from Germany.

CRIMINAL ABORTION AND ITS RELATION TO THE MEDICAL PROFESSION.*

BY JOSEPH WAGGONER, M. D., RAVENNA, O.

Gentlemen of the Portage County Medical Society:

In addressing you to-day, I have thought best to call your attention to a subject which has given me a great deal of perplexed thought—thought which is frequently recurring, and more particularly so when in attendance at our meetings. I refer to criminal abortion and its relation to the medical profession.

I feel it a duty which I owe to myself, to my medical brethren, and to the cause of humanity, to say to you just how I have thought and felt on this subject.

Mankind claim for themselves more intelligence than any or all the orders of creation, and with that intelligence, the knowledge of right and wrong possessed by no other creature. Yet, with this intelligence, this knowledge of right and wrong, how is it and why is it that mankind are guilty of a crime that is unknown amongst the inferior orders of creation? This crime which I have been observant of for nearly half a century, exists among all classes of society. Those of the most cultivated intellect are equally guilty with the depraved and abandoned. How frequently our profession is called upon to perpetrate this crime—yes, urged to do it persistently as though there is

*Read at Garrettsville, O., October 3d, 1895.



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nothing wrong in its commission. Understand me here that I do not charge medical men with being the only instrument or great cause of producing this criminal act.

The creatures whose love of offspring should be the controlling element of their lives, are too frequently the cause of cutting short a fætal life in the first stage of its existence. Possibly some one of our profession is guilty of aiding, but we are all guilty of standing by, allowing this crime to go on without our vigorous and solemn protest. There is nothing I have met with in my professional career that has so shocked my sense of justice and mercy as this cruel and unnatural crime.

How it can be reasoned less a crime to destroy a youth instead of a man, or an infant instead of a youth, or a fœtus in utero instead of the infant, passes all my reasoning in the conception of crime. Why, sirs, were you to go out into the street and kill the first child or youth you met, the parents of that child or youth, with the populace, would be for arresting you and hanging you to the first lamp post, or at least prosecuting you to the utmost extent of the law, and to an ignominious death, and all would say—Amen! Yet some of these same people would urge you, yea, insist that you should enter their dwellings in the dark, plunge the dagger into the fœtus in utero, and feel happy that they have got rid of a life that would have given them some care and solicitude. What a strange phase of humanity! How horrible to contemplate!

Thomas Jefferson, in the contemplation of slavery, is said to have exclaimed: "I tremble for my country when I think there is a just God." How much more ought we to tremble when we know that murder is a greater crime than robbery. Altogether, the loss of life by this crime is as much or more than by all the diseases flesh is heir to. This you may think is a strong statement, but of the fact I feel reasonably well assured.

Sometimes the mother, too, is a sacrifice to this inhuman act, and should she survive, it is frequently with a broken down constitution or some chronic pelvic disease from which she is a sufferer for years or perhaps the rest of her life. I believe that more pelvic diseases are the sequence of this one cause than from all other causes combined.





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I think you have frequently observed repeated interrupted gestations result in misery to the individual for the rest of life.

We, as a profession, stand in a precarious, yes, a perilous position, in relation to this crime, and by our silence are adding to the stigma that already rests upon us. As a profession we are humane, relieve suffering wherever we find it. And how frequently are we called to finish up the crime commenced by another, and in this way get smirched and tainted and are classed with the abortionist. This is an unpleasant position in which to be placed, and one from which we should try to extricate ourselves.

I think we are somewhat to blame for getting into this position. I will try to explain. We are looked upon as the guardians of health and life. We have our societies, county, district, state and national, in which we meet and discuss the best means to check disease and prolong life. Yet how silent we are on this one question. So long as I have been a member of medical societies, I have not, with one exception, ever heard a paper which referred to this subject, and that exceptional paper only referred to the crime so far as physicians are concerned.

The same also may be said of those agents of reform and progression, the medical press. When, where and by whom do you see an editorial on this subject or a contribution from the many writers referring to this matter? We, in our society meetings, have been frittering away our time as to the best means of treating disease, while this flood-gate of death is rushing on, and by our silence giving consent to this wholesale destruction of life. We are thus, in a measure, made partakers with the more guilty.

At a meeting of our society, I brought up this subject. The eldest member of our society present said that from his observation and experience of over forty years, he believed that one-half of the gestations were thus cut short—that only half reached a natural termination. Another member thought that more than half were aborted. No member present seemed to differ from these statements. Feeling a great interest in this subject and wishing to get some statistics relating thereto, I called on our probate judge and procured an



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abstract of the births and deaths in our county for the year. Births, 390; deaths, 295.

You will see from this that the number of births were nearly one hundred, or one-quarter greater than the number of deaths.

Now, if the number of gestations that were prematurely terminated equaled the number of births, we have about a quarter more deaths from this crime than all other causes combined. Then let us suppose that one-quarter of these abortions are legitimate, or produced from influences not criminal, which I think you will concede as a liberal estimate, yet the remaining three-quarters which are criminal, amount to as many deaths as from all other causes. How does this look? Is it not appalling? But this is not all. See the licentiousness around you—too much of it—the outgrowth of this crime.

As you know, licentiousness is the curse of youth and manhood, the curse of communities, states and nations, and this emasculation precedes disintegration and utter ruin. This is truly a woeful picture, yet I fear only too true; cannot we step in and try to arrest this current of destruction?

Gentlemen, this is an age of rapid advancement in our profession. Look at the wonders of surgery; the developments of the microscope; the close attention in clinical medicine; all of which results in the relieving of human suffering and prolonging human life. Then, in the name of Heaven, I ask why is this one subject ignored—a subject fraught with more blessings to humanity than any other, and the saving of more human life?

It does seem to me that we should wake and warm up on this subject. We, as sentinels and guardians of the life of our fellow-beings, should point out these quicksands which are engulfing them. Please do let us agitate this dire evil, speak on it, write of it—hold it up before us and our fellows until it becomes a deed too dark to contemplate or think of but with condemnation and horror. Is there anything that will benefit humanity more than the abolition of this crime and its consequences? If there is, pray tell us what it is—but there is not. Then I beg of you let us do what we can to stop this criminal waste of life and its

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entailed suffering on mankind. If we have those amongst us who are engaged in this criminal practice, seek them out, ostracise them, and place the brand of Cain upon them. Teach the other sex the enormity of the crime, the dangers attending it, and the evils that are likely to and do arise from it. When we do this, we are doing our duty—doing what we ought to do—doing what our profession calls us to do, and unless we do it, we deserve the odium that now attaches to us, and the disgrace of being unfaithful to our duty as members of a noble and humane profession.

I have done. I hope I may have said something that will invoke discussion, and continued thought and discussion on this subject, until we place ourselves where we and the profession ought to stand as benefactors of the human race.

A CASE OF MULTIPLE MYOMATA OF THE UTERUS. ULCERATED VARICOSE VEINS OF LEFT LEG. HYSTEROMYOMECTOMY. RECOVERY.*

BY HUNTER ROBB, M. D.

Prof. of Gynæcology, Western Reserve University.

K. McB., white, age 49, single, was admitted to the Charity Hospital May 27th, 1895, complaining of pain in the back and lower abdomen and also of varicose veins in the left leg.

The Family History has no bearing upon the case.

Personal History. Has always been healthy. Catamenia appeared when she was 15 years of age. They were slight in amount, lasting a day and a half, but were always regular and without pain. There was considerable amount of leucorrheal discharge at the time of admission to the hospital.

Present Sickness. Has been complaining for the past two years of "bad health," particularly of pain in the small of the back, the left lower abdomen and the left leg from the knee down. For the past two years the pain has been





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worse about the internal malleolus. At the time of her admission to the hospital a number of ulcerafed areas varying in size from a pin point to several centimeters in diameter were observed upon the inner surface of the left leg. The patient explained their presence by saying that she often suffered from intense itching and that as a consequence of scratching blisters would be formed which would afterwards burst, leaving a raw surface. The bowels have been irregular; at times the patient would not have a movement for a week. Micturition frequent; the urine was passed in small quantities and with burning pain.

At the examination without an anæsthetic, the outlet was found to be intact, the cervix uteri soft and pointing upward; the uterus was forward, movable, very irregular in outline, enlarged, about the size of an adult head. In the cervix a polypus about the size of a hazel-nut could be felt which was at once removed by torsion.

On June 8, I proceeded to operation, being assisted by the resident staff of the hospital and my nurse, Miss Heriot.

Operation. Incision having been made through thick abdominal walls in the median line and the peritoneal cavity having been opened, the uterus, which was found to be practically made up of a mass of myomatous tumors, was delivered from the abdominal cavity. The broad ligaments on either side having been transfixed, the uterine arteries having been tied, the uterus together with the contained tumors was excised. The peritoneal surfaces were approximated in the median line over the pedicle. The abdominal cavity was then irrigated with sterilized salt solution at a temperature of 112° F. and a strip of iodoformed gauze was introduced into the cul-de-sac and brought out at the lower angle of the incision. The abdomen was finally closed after the usual manner and the usual dressings were applied. Patient made an uninterrupted recovery and is now perfectly well. The pain in the abdomen and in the leg of which she complained has disappeared, and the ulcerated varicose areas on the left leg have entirely healed.

It would seem probable that in this case the varicose condition of the veins of the left leg had resulted from pressure exerted by the tumor upon the vessels of the pelvis. If





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this is the case, it is to be expected that the removal of the obstruction will bring about a perfect cure. No specific treatment was applied to the ulcers, but since it is well-known that rest in bed by itself causes the ulcers for the time at least to heal spontaneously, it will be necessary to wait for some time to show whether or no the present improvement will be lasting.

ON THE DIAGNOSTIC RESULTS OF THE MICRO-SCOPICAL EXAMINATION OF THE ASCITIC FLUID IN TWO CASES OF CARCINOMA INVOLVING THE PERITONEUM.

BY L. P. H. BAHRENBURG.

(From the Pathological Laboratory of the Western Reserve University.)

The first case was that of a man aged 70 years, a farmer by occupation, who gave a history of repeated attacks of biliary colic extending over a period of twenty years. For the last two years he has been losing weight and strength. About the middle of December, 1895, he was seen in consultation by Dr. C. F. Hoover. I am indebted to Dr. Hoover for the following notes: "emaciated; cachectic; dyspnæic;" no icterus; no involvement of the lymphatic system; thoracic examination negative; small, rapid pulse; slight ædema about the malleoli; abdomen distended, dull on percussion, fluctuating; no nodules palpable over the abdominal area; heart and lungs negative." Abdominal paracentesis was performed, and six liters of fluid withdrawn, but the weakness of the patient and the pain caused by pressure forbade an accurate palpation of the abdominal cavity, hence I am anable to say whether or not the liver and spleen were enlarged, or nodules present on the peritoneal surface. The man died the day following the paracentesis. Autopsy could not be obtained. Probable diagnosis: carcinoma of omentum and peritoneum.

The fluid as evacuated in appearance suggested very strongly that of an ascites chylosis or ascites chyloformis. On standing, the cellular elements settled on the bottom and



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left a straw-colored supernatant fluid. Under Dr. Hoover's direction, I subjected this fluid to a microscopical and a chemical examination. It was of a gelatinous, syrupy consistency, and, on chemical analysis, proved to be very rich in albumin.

After standing twenty-four hours, there was in the fluid a copious sediment of a grayish-yellow color, and of a more or less stringy nature. A portion of this fresh sediment examined under the microscope showed a large number of cells. The predominant cells were large, polyhedral cells with a somewhat granular protoplasm and rather large round, or oval, vesicular nuclei. In some of these cells nuclear figures could be made out. In some cells there were two nuclei. In addition to these cells, there were seen large numbers of polymorphous nuclear leucocytes, and some small round cells with relatively large nuclei.

After decanting the supernatant fluid, the addition of alcohol was followed by the changing of the more or less ropy sediment into a firm mass resembling coagulum. After a few days this material was firm and hard, and, after imbedding it in celloidin, thin sections were readily cut. These sections were stained with a number of reagents and gave very interesting pictures. Sections stained with hæmatoxylon and eosin showed the mass to be made up of a great number of cells, between which were a number of fine fibrillar threads which stained deeply with eosin (fibrin). The cells varied in size and shape; for the most part they were rather large, polyhedral in shape, with granular protoplasm and large, usually oval, nuclei which stained deeply with hæmatoxylon and often contained several In many of these cells there were seen small. usually round, but often bizarre-shaped masses, staining deeply with hæmatoxylon, and often surrounded by a rim of protoplasm of varying width (cell-inclusions?). Similar bodies were noted outside the cells. Besides these cells there were a number of polymorphous nuclear leucocytes and some small round cells with a deeply-staining nucleus and a narrow rim of protoplasm. Sections stained with mixtures of aqueous solutions of safronin and malachit-green, and safronin and gentian-violet (see Roncali, Centralblatt



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für Bakteriologie und Parasitenkunde, Oct. 15, 1895,) showed in the main the same appearances, the nuclei of the cells being stained deeply and the cell-bodies and fibrinthreads rather faintly red. Here and there within the larger cells, and between them, could be made out small round bodies which stained faintly with the malachit-green and gentian-violet. Though some of these bodies were somewhat suggestive, yet the appearances noted in these specimens were not conclusive that they were the yeast-fungi described by Busse, Sanfelice, Roncali, and others, as blastomycetes in the cells of tumors. These bodies did; however, strikingly resemble the cell-inclusions and other bodies so commonly seen in tumors. A study of the sections showed that the large polyhedral cells were certainly of epithelial origin, and a very much more satisfactory idea of these cells and their characteristics was given in the prepared sections than in the fresh preparations.

CASE II was a negro, act. 55, who was admitted in the service of Dr. C. F. Hoover into the City Hospital with symptoms of intestinal obstruction. The abdomen was swollen and fluctuating. The man died in a few hours after admission, before he was seen by the visiting physician. A certain amount of the fluid was removed from the peritoneal cavity for study. At the autopsy a large amount of thick, syrupy, straw-colored fluid was found in the abdominal cavity. The anatomical diagnosis abstracted from the autopsy records is as follows: primary scirrhus carcinoma of the pylorus, with extensive secondary carcinosis of the omentum and peritoneum; stricture of the transverse colon due to inclusion in the thickened omentum; acute diffuse peritonitis; chronic fibrous pleurisy, with adhesions on the right side.

Sections made from the growth in the stomach and omentum showed the new growth to be typical scirrhus carcinoma. A chemical analysis of the fluid showed a great abundance of albumin.

Microscopical examination of the fresh sediment showed it to be composed of fibrin filaments and of rather large polyhedral cells with somewhat granular protoplasm and oval, or round, nuclei. There were only a few polymorphous



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nuclear leucocytes. On the addition of alcohol a firm gravish-white coagulum formed from the sediment; this was hardened in alcohol and imbedded in celloidin. Sections made from this and stained as in Case I showed a large amount of amorphous material which stained diffusely with eosin and with nuclear stains. Here and there in this material were clumps of varying numbers of polyhedral cells with somewhat granular protoplasm and oval, or round, nuclei. The same cell-inclusions and other appearances noted in Case I were seen here also. No polymorphous nuclear leucocytes were present. Between the cells there was often apparently a fine fibrillar reticulum. The cells described were clearly epithelial in type, and in shape, size, and appearance agreeing with the cells seen in the sections from the tumor of the stomach and the metastases in the omentum.

It will be seen that the microscopical findings in both these cases were practically identical. So in each case I was able to demonstrate in the ascitic fluid epithelial elements which were, of course, highly suggestive, if not conclusive evidence of carcinoma involving the peritoneum.

Case I was examined in order to substantiate the diagnosis made on the physical examination of the patient and, although the result was corroborative, yet it might be questioned, owing to the absence of a confirmation by autopsy; but in Case II we have the same microscopical results and on autopsy find the stomach and omentum carcinomatous with involvement of the peritoneum. This is certainly indicative of the value which may be placed on the results in Case I, and shows that a careful study of ascitic fluids may be made of valuable assistance in confirming and establishing a diagnosis when the new growth involves or extends through the peritoneum.

In studying Case I, fresh cover-slip preparations of the sediment were first used, and then, in order to study the cells more accurately, I attempted to stain them on dried coverslip preparations. This method proved quite unsuccessful, for, by the evaporation of the moisture and by the fixing of the specimen by heat, the integrity of the cells seemed to suffer to a greater or less extent, and they took up the stains



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very poorly. After several such unsatisfactory attempts, my attention was attracted to the semi-coagulated condition of a portion of the sediment and the idea of hardening and imbedding this coagulum and staining sections of it immediately suggested itself. This was acted upon at once with the encouraging results above described.

So far as I am apprised, this method of fixing and hardening and studying the cellular elements of the sediment of cavity fluids is original. Not only may the character and kinds of cells in exudations into the serous cavities be satisfactorily studied by means of this method, but the bacterial and other parasites contained in them may be recognized.

Since the above was written I have had an opportunity of testing this method in a case of acute pleurisy with effusion in the service of Dr. J. H. Lowman in the Lakeside Hospital. In this case I hardened and embedded the coagulum which soon appeared in the fluid and, in sections stained with hæmatoxylon and eosin, found the greater part of the mass to consist of fibrin and a granular detritus which stained deeply with eosin. In the meshes of this fibrinous material were found a few scattered cells, polymorphous nuclear leucocytes, red blood-corpuscles, and desquamated pleural endothelial cells well preserved, the latter form predominating.

My thanks are due to Dr. Hoover for the use of his material and for valuable suggestions, and to Prof. Howard for directing my work.

CLEVELAND MEDICAL SOCIETY.

Meeting of January 24, 1896.

The hall of the Chamber of Commerce in the Arcade was well filled, and a most interesting and instructive program was presented.

The newly elected President, Dr. J. E. Cook, occupied the chair, and made an address in which recommendations were presented for the further advancement and progress of the society.

The numbers and regular attendance of the members





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of the society had so increased that he felt that a movement to form sections would be imperative and most desirable in the near future; the time now allotted for meetings being entirely inadequate for the amount of work at hand for the society. Each specialty would be interested in meetings of its own section, and nothing need prevent any member of the society from attending all. His only fear would be that some interest might be lost in the mother society from work in sections, but with the hearty co-operation of the members, he felt that the full interest could be maintained throughout.

The formation of surgical, gynæcological, and pathological sections was recommended for the near future. It was suggested that the pathological specimens presented to the society from time to time should go to form a pathological museum, room for which should be prepared in connection with a "Medical Home" for the society. The library of the Cleveland Library Association could also be quartered in such a home, and as the time and need for such a place was near at hand, a committee was appointed to take up the

matter of providing a suitable place.

The society was urged to work for establishing a pathological laboratory for the benefit of the public health in connection with the health department of the city, and to secure public legislation for common protection in medical practice. On motion, a committee was appointed to consider and report at next meeting upon the recommendations offered

by the president.

Two cases were presented for the inspection of the society by Dr. Corlett, one being a very rare disease for this country, "pityriasis rosæ," or "pityriasis maculata et circinata," the only case ever seen by the doctor on this continent. The second was a peculiar manifestation of tertiary syphilis. The doctor remarked that it is often difficult to get the previous history of these cases of syphilis, and therefore he generally supplies it himself. (Laughter.)

Dr. N. Stone Scott presented a case of fractured patella treated with an elastic ring which was placed over, and bound down around the patella with bandages passing over it and around a posterior splint; a good union of the

fragments had resulted.

DR. WOODWARD, U. S. Marine Surgeon, illustrated his methods for treating fractures of the thigh, and presented a case recently treated in which the army fracture box dressing was used. The box is made in two parts, and is really a box within a box; the inner part being made to slide without friction from end to end of the outer one. The limb is

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dressed and placed in the inner box and extension is applied. The inner side of the outer box stands between the patient's legs, and is made of a sufficient length to reach the perineum, and not allow the patient to slip down in bed. The doctor's best case intended for illustration of a cure was not present, although he had promised faithfully to come. The reason for his absence as given by Dr. Woodward, was that he loved whiskey better than he loved his doctor.

An "orderly" from the hospital posed as patient, and Dr. Woodward's assistants placed his limb in the fracture box, with the dressings complete, and much interest was exhibited

in the details by the society.

The doctor stated that the box in use was originally designed by Dr. Young of Cincinnati, who at that time was an army surgeon. Less shortening is one of the merits claimed for this treatment, and Dr. Allen jokingly remarked that he had actually treated one case in this manner, where the fractured limb became an inch longer than its fellow.

Dr. Hammond displayed three sections of intestine to

illustrate diverticulum.

The discussion of the paper read by Dr. F. S. CLARK at a previous meeting on the subject of pelvimetry was taken up.

DR. ROSENWASSER said that the subject of pelvimetry was nothing new, and as to the means for measurement of the pelvis he preferred the use of the hand. An expert would be able to measure the diameters with sufficient accuracy in that manner, and that the main question to decide was, as to whether the size of the head of the fœtus was in proportion to the size of the pelvic diameters, and whether it would pass at normal time of delivery; if not, to determine the date when parturition should be induced.

Dr. Scales could not altogether agree with Dr. Rosenwasser. He thought the whole matter to be somewhat clouded in doubt. That more study might make advancement past our present knowledge of the subject; thought that the pelvimeter should be used, and every means taken to determine accurate results, both for protection of the doctor and advancement of science. Although the head might be apparently too large, there were other things that might be considered, such as compressibility of the cranium, etc.

DR. TUCKERMAN thought that a practical test was to see if the head could be made to engage itself in the pelvis when

downward pressure was made.

This subject was further discussed by Doctors Aldrich,

Woodbridge and Clark.

DR. G. W. CRILE gave the Society a rare treat in the form of stereopticon views, illustrating diseases, deformities,

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dislocations and fractures of bones. His exhibit, composed of 65 photographic slides, was gathered from France, Germany and America, many of them being taken from specimens lodged in the National Museum at Washington, D. C.

The President, Dr. Cook, announced that in accordance with a time honored custom of the society, a luncheon had been prepared, and that the Society was invited to partake of it with him at Stranahan's restaurant, next door in the Arcade.

The lunch was well patronized by the members, and a vote of thanks was unanimously given to the doctor for the generous lay-out.

C. W. S.

REGULAR MEETING, FRIDAY EVENING, FEBRUARY 14.

The society met in the Chamber of Commerce rooms. The only business of importance transacted was the adoption of an amendment to Article IX, Sec. 10 of the Constitution. The purpose of the amendment is to limit the time for presenting cases of clinical experience without exhibition of the case, and for the exhibition of pathological specimens to five minutes, and for presenting clinical cases to ten minutes, unless an extension of time is granted by the society.

DR. TUCKERMAN earnestly exhorted all members of the society to send personal letters to the state senators, urging them to vote for the passage of the Mosgrove medical bill.

Dr. Bard presented a case of extirpation of the portion of the thyroid for goitre. The operation had been performed one year previously, and the case, a boy 16 years of age, had made great progress in development. The doctor did not touch upon the pathology of the particular case, so did not make the case quite as clear as we should have desired.

Dr. Wirt presented several very interesting cases of white swelling of the knee joint in children, which he had treated with the modified Billroth splint, with excellent results, and received hearty applause for his efforts.

The first paper of the evening was read by Dr. J. M. Ingersoll, subject: "Empyema of the Accessory Cavities of the Nose." The paper evidenced careful preparation and a thorough knowledge of the subject on the part of the author, who supplemented his paper by exhibiting sections of the skull, illustrating the different points brought out. The discussion of the paper was taken up by Dr. Wm. Lincoln, Dr. Straight and Dr. Childs.

Following this paper, Dr. T. B. WILLIAMS read a paper





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on the "Treatment of Typhoid Fever." The doctor dwelt on the numerous methods of treatment, and gave the chief points in each, but failed to offer anything new or startling. The paper, however, aroused a spirited discussion, participated in by Drs. Woodward, Bard and Farnsworth.

The meeting then adjourned to meet again in two weeks. Dr. J. J. Thomas.

THROAT, EYE AND EAR SECTION OF THE CUYAHOGA COUNTY MEDICAL SOCIETY.

The regular monthly meeting of the Throat, Ear and Eye Section was held February 7th at Dr. W. E. Bruner's office.

After the transaction of some business matter, Dr. Baker presented a case of vertigo, with error of refraction and periodical contraction of the field of vision, similar to hysteria, in which the correction of the error of refraction had given much benefit, but not a complete cure, and a second case of exophoria, in which double tenotomy had been performed, but comparatively little benefit had been derived therefrom.

These two cases were shown for examination and consultation, and the question asked: What can be done for such cases, in which, after following out the line of treatment which seems to be clearly indicated, the result is not satisfactory?

DR. Bruner reported a case of hysterical blindness in one eye, in a girl nine (9) years old, which was particularly

interesting in so young a patient.

DR. F. K. SMITH'S paper on "The Development of Test Cards for the Eye," was a very complete and interesting historical sketch of the invention and improvement of Test Cards, showing the evolution of the different cards, their advantages and disadvantages, and containing some good suggestions for still further improvement.

DR. WM. LINCOLN read a paper on "Abscess of the Septum," with a report of two (2) cases in which the abscess was due to trauma, and where recovery took place under

simple surgical treatment.

The next meeting will be held Friday, March 6, at eight (8) p. m., at Wooster Medical College, and Dr. Crile will show some interesting demonstrations on the larynx of a dog.

J. M. INGERSOLL, M. D.,

Secretary.



University Club, Madison Square, N. Y.

February 8th, 1896.

To the Editors of the Cleveland Medical Gazette:

Gentlemen:—It is not often that a doctor prescribes for his own malady, and still more unusual for him to take the medicine thus ordered. As I am now enjoying this unique experience for the cure of a disease not uncommon among doctors, I will give

you a brief account of the symptoms and treatment.

The patient, a practitioner with ordinary professional cares, is suddenly seized with unrest; is weary of tramping around in the peck measure of human trouble and suffering within his own observation and longs for a part in the bushels beyond; becomes dissatisfied with the character of his professional work and begins to lose faith in the very principles of the healing art. With such symptoms present there is but one course to pursue. The patient must go away from home. He must gain new inspiration from the successful labors of others, comfort in finding that even the leaders in the profession meet the same difficulties and perplexities in their daily practice, and having reached a new point of view, return to his work refreshed and filled with the determination that his professional ministrations shall be more conscientiously performed than ever before.

The result of this treatment is most gratifying, and now, after a ten days' "rest," visiting numerous hospitals, medical institutions and professional acquaintances in Philadelphia, New York, Baltimore and Washington, am quite recovered of the symptoms, and already have an itching (a sign of healing) to be home again and at work. Naturally the methods of carrying out the principles of asepsis and antisepsis in the operating room and in the hospital ward was most frequently within our observation; and it is my opinion these principles were not carried out more carefully or thoroughly here than in our own hospitals. True, they have some palatial operating rooms at the Roosevelt and Presbyterian hospitals and many others not so palatial, but in each is found the same operating furniture, instruments and appliances as we have at home. One surgeon and his assistants stamped about in wooden shoes, another surgeon and his assistants wore canvas shoes, and still another operator made a complete change of his clothing after each operation. . Perfect asepsis does not depend upon such non-essential details. Indeed, there is great danger that in carrying out these non-essential details, the principles of clean surgery may be overlooked. Asepsis is not secured by wearing wooden shoes or canvas shoes, and there are various ways of rendering the hands surgically clean. Every day a new antiseptic appears. Just now it is chlorine water, C. P. But good results were secured with other solutions before this new one was proposed.

One operator informed me that he never used catgut

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because it could not be thoroughly sterilized, and another uses nothing but catgut. A third thinks iron dyed silk only should be used. At Johns Hopkins it is all silver wire for suture and silver foil for protective immediately over the wound. This practice is based upon the results of bacteriological investigations, which seem to prove that germs are very shy of silver in any form, keeping away from it when placed in their culture media. For gold, on the other hand, they seem to have a perfect hard money man's fondness, and bacteria thus might with some propriety be called "gold bugs." The large number of nurses and attendants necessary to prepare for the performing of a number of operations in the brief period of a clinic is a source of danger of infection through haste and carelessness, and numerous instances of the violation of aseptic principles were observed.

It was comforting to find that the authorities in the profession meet with failures and are frank enough to acknowledge them. Dr. Bull, in a clinic at the New York hospital, operated upon a case of necrosis of the lower end of the femur, and said that such cases were rarely cured by operation when of long standing. Markoe, Sr., had said to him that in a hospital practice of twenty-five years he could not remember of a single case of necrosis of the lower end of the femur of long duration that had left the hospital after operation without a sinus. Dr. Bull hoped that at the end of his twenty-five years of service to be able to make a more favorable report. And I think he will if care and thoroughness of the operation is any criterion of success.

I enjoyed a very pleasant hour with Prof. Keen, who inquired kindly for the medical fraternity whom he had met in Cleveland. He was much pleased to know that in the clinical case of carcinoma of the breast he operated upon there had been no local recurrence. That she had only recently succumbed to an internal metastasis, probably of the liver, as no post-mortem was granted, was greatly to be lamented, but metastasis are not the fault of the surgeon. He showed us through his beautiful new private hospital, remarking the poor have all the luxuries of the public hospital care. This one furnishes the same advantages to the rich.

A very good friend related the following of how statistics are often prepared to suit the purposes of a writer. My friend met the statistician upon a suburban train one day, when the latter remarked that he was tempted to remain in the city, as a case of this particular injury had just been brought to the hospital. "But my house surgeon will care for it all right." "But if the result is not good, would you report it?" asks my friend. "Certainly not," said the statistician; "if the case progresses favorable it is because the house surgeon has used the methods of treatment I have taught him and it is the same as if I had been present myself, and of course I should report as my case. If the case does not progress favorable, it will be due to carelessness or want of proper knowledge of my methods on the part of the house surgeon and I shall not report the case, as it was not



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really treated by my method." So much for the value of statistics!

At one of the Philadelphia schools the Professor of Surgery spoke very enthusiastically of what he was pleased to call his method of teaching surgery. He divides his class into sections, and each section attends the surgical dispensary every day one hour for a few weeks, examining the cases presented and assisting in the minor operations performed. This is certainly an excellent method of giving instruction, but it is just what we do for the entire term.

At one of the schools I sat with over four hundred students in a most filthy amphitheatre through a lecture upon fractures of the elbow joint. There was an ill-concealed impatience among the students; so boisterous did they become that the lecturer twice stopped in his discourse and begged in supplicating manner that they desist and permit him to finish his lecture. And this was no fault of the lecturer, for his talk was most practical and richly illustrated with numerous specimens, well executed diagrams, black board sketches, splints and dressings. I believe in the small bodies of students and individual contact with the instructors. One advantage there seemed to me in the teaching everywhere, was the wealth of illustration in specimens, drawings and the like. Although I did read a notice in one place that So and So would not hold his class in operative surgery as there was no "subject" at hand. It seemed to me I had heard the same remark made elsewhere. Nor did I find any of the clinics over-burdened with operation cases. But I have already trespassed too long upon your valuable time and space.

Yours very truly, C. B. PARKER.

Alma, Mich., December 20, 1895.

Editor Cleveland Medical Gazette, Cleveland, Ohio:

My little daughter, aged two years and nine months, fell headlong down the cellar stairs and struck the two upper middle incisors on the edge of the step, extracting them as completely as if by forceps. The alveolar processes of the right tooth were fractured and the gum lacerated the entire length of the root. After the fright and crying, which continued a half hour or more, the child was rocked to sleep in her mother's arms and placed in her buggy. We found the teeth on the cellar steps uninjured. They were placed in a normal saline solution of tepid temperature. On the arrival of an assistant with the chloroform for anesthesia, the child was sleeping quietly. Chloroform was administered without the child awakening and the teeth were placed within





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their sockets and pressed into position; the edge of each tooth fitting firmly in a groove of one blade of a forceps, the hand of the operator being placed on the back of the head with the pressure properly directed. The gums about were cleansed antiseptically and the teeth left in position without further dressing or application.

The accident occurred about two o'clock, and when the child awoke from her sleep at 5:30, her teeth were in place. The teeth had been out of the mouth fully one hour. Milk and soft food were administered, and the lacerated gums cleansed after eating. Healing of the gums occurred by

first intention.

It is now over four weeks since the teeth were placed and they are now solid, in good position and of normal color. The gums are normal in color and consistency and the appearance of the mouth quite natural.

I report this as a successful case of transplantation of teeth that had been out of the mouth over an hour, and as another demonstration of chloroform anesthesia during

natural sleep.

Yours fraternally,

E. S. Pettyjohn,

Medical Superintendent.



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"DOCTOR, CAN I SMOKE?"

On page 199, Medical Record, February 8, 1896, the editor in an interesting comment discusses the article of Dr. L. Jankau on "The Indications and Contra-Indications for the Use of Tobacco by the Sick and Convalescent."

This seems to be a very good subject to pass around for enlargement, as many of us doubtless know something about tobacco from experience as well as from observation, but few are frank enough to tell all they know. The use of Editorial.

tobacco is rather a delicate topic, and a married man might hesitate to deal with it fairly, least his wife drive very close and pointed conclusions, deductions and moralizings. The *Record* accuses Dr. Jankau of being rather a lenient sanitarian, as he is believed to be something of a smoker himself. Those who do not use tobacco are not competent to give testimony, except from observation, and perhaps it might be well to solicit personal confessions, and confidential warnings from those who have suffered from tobacco narcosis and depression, and get tips on the quiet from those who know nothing but the peace that passeth understanding, in praise of the weed, and then weigh our evidence pro and con.

We once knew a woman, an inmate of a county infirmary, who attained the ripe age of 106 years, who had always been an inveterate user of tobacco, but owing to poverty, it became a luxury not easily obtained. To economize in its use, she first chewed the plug and dried the quids, from which she made a tea and drank of it freely, then the residue was carefully redried for consumption in her T. D. pipe. The old lady proudly affirmed that she had never been ill, and on this account we feel rather sorry, for it excludes her from the subject in hand.

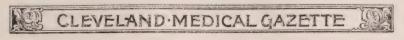
Mark Twain is credited with the belief that the smoking of cigars is conducive to wit, and easy flow of the pen, but as our stock of cigars is rather low, we trust our good smokers who write will tell us more about the effects of tobacco upon throat diseases, dyspepsia, nervous debility and general malaise.

We believe the use of tobacco is depressing to the nervous system, to the heart, and that it decreases one's store of vital energy, but quite as many throat troubles are seen among the non-users of tobacco as among the users.

C. W. S.

THE OVERLAPPING OF SPECIALTIES.

The editor of the New York Medical Journal, in commenting on Dr. Kelsey's clinical lecture on "The Relation of Rectal Surgery to other Specialties," says: Ne sutor



Editorial.

supra crepidam is a wise saying, but like most proverbs, it may sometimes be disregarded to the general advantage.

Specialism itself, even when liberally defined, is to some extent objectionable; it is accepted in large communities, where alone it is practicable, because of certain counterbalancing advantages. Certainly that spirit of rigid specialism which would set up the recto-vaginal sæptum, for example, as a barrier not to be crossed by either the gynæcologist or the rectal surgeon can in no wise be defended. Indeed, it is doubtful if so extreme a view, however it may tickle the laity, is held by any member of the medical profession; nevertheless, it is edifying to have the necessity of the overlapping of specialties so lucidly set forth as it has been done by Dr. Kelsey. The clinical basis, too, is the one proper foundation for such an exposition, showing as it does how disease of a particular organ or area is prone to lead to disease, or at least to prominent manifestations of disease, in adjacent organs or areas or those having intimate nervous connection with the seat of the original trouble.

Dr. Kelsey, however, has dealt only with the relations between rectal surgery and that aspect of gynæcology which often involves abdominal section; but that alone is suggestive enough to call up in the mind of the reflective reader the numerous other like correlations of specialties, and the practical inference can not fail to be drawn that, in order to practice a specialty with justice to one's patients and to one's self, one must have something more than a dim remembrance of such reflex symptoms and their significance as are exemplified by pain in the knee and hip-joint disease-one must recognize, and bear always in mind, that lesions which he may discover or think he discovers in the domain that forms the subject of his own special study are not necessarily all that he has to concern himself about in the task of restor-He should continually ask himself what may be wrong in other parts of the patient's organism and be contributing to give rise to the symptoms of which the patient complains, and, if reasonable probability of the existence of such a contributory source of trouble appears, proceed to ascertain what it is and whether or not it is within his power to remedy, or else to settle once for all that the probability



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is not a reality. Of course there are limitations to what can be expected of a practitioner in this way; everybody who is not an opthalmologist, for example (except the neurologists and perhaps the "refracting" opticians), stops short at the eye, knowing how absolutely incompetent he is to examine that organ.

There is nothing new in all this, nothing that welltrained practitioners of medicine have not always recognized; but it needs to be presented now and then to those who are inexperienced. Assuredly it is appreciated by the general practitioner, that real head of the medical profession. If he is of the right kind, he starts in practice, not with the conviction that he "knows it all," but feeling that, however carefully he has been taught, he has still to educate himself. He sees that the first thing for him to do is to acquire the power of perceiving when he is getting into water too deep for himwhen, in other words, he should ask for a consultation. When he has ripened he will ask for few consultations, but will always consent to one, unnecessary as he may know it to be, when the specialty-struck patient or his friends suggest it. In short, he is, or ought to be, oftener called in consultation by the specialists than he finds himself inclined to call on them for aid.

PULSATORY TINNITUS.

At the last meeting of the British Medical Association, the president, Sir William Dalby, showed a patient, a young lady, aged 15, with whom a loud grating sound in the left tympanic cavity could be heard by the bystanders. The sound was something like the loud tick of a watch, and was synchronous with the pulse for several beats; it then stopped for a brief interval, and was then resumed. This remarkable symptom came on suddenly in February, 1894, and had remained ever since. At that time, as now, she was in excellent health, and the symptom is neither more nor less pronounced than it was seventeen months ago. The beats can be observed to vary in number. Thus it was noticed to beat seven times, an interval; then twice, an interval; then four times, an interval; then thirteen times.



Editorial.

The hearing is not affected. No position or movement of the body, or indeed any condition that has up to now been noticed, appear to modify it. Both tympanic membranes are normal. Sir William Dalby had only met with two other cases of a similar nature. Dr. Baker reported a similar case in the Archives of Otology about ten years ago.

C. G. COMEGYS, M. D.

Dr. Comegys died at his home in Cincinnati, February 10. For nearly half a century Dr. Comegys has been one of the most eminent practitioners of medicine in the Ohio Valley. He has always been a regular attendant upon medical society meetings, was one of the founders of the Cincinnati Academy of Medicine, and scarcely a year has passed without his well-known features being seen at the meeting of the American Medical Association. It was largely through his efforts that the Association established a weekly journal. His chief literary work was the translation of "Renouard's History of Medicine." He was a regular contributor to medical periodicals.

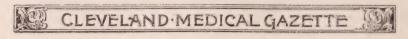
Dr. Comegys was born in Cherburg, Del., July 23, 1816; his father was governor of Delaware in 1839–40.

DR. W. J. SCOTT.

Governor Bushnell could not do better than appoint Dr. W. J. Scott, of this city, as one of the members of the State Board of Medical Registration and Examination.

That board should be composed of the most eminent physicians, representing the various schools of practice in the State, and for that reason Dr. Scott should be one of its members. Not only is he recognized as the most distinguished representative of the school to which he belongs, but we are certain that he is, by common consent, accorded first place among all the physicians in Cleveland.

Combined with wonderful skill and ability in his chosen profession are all the other admirable qualities—broad-



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mindedness, sympathy, gentleness, and sterling integrity—which have given Dr. W. J. Scott a firm place in the affections of the host of Cleveland people who have claimed him as their friend.

The *Leader* can think of no physician in Cleveland who is better fitted for a place on the medical board, and certainly there is none other whose appointment would give as much satisfaction to the people of this city.

The Gazette takes great pleasure in endorsing the above editorial taken from the *Cleveland Leader*. We are sure that the entire medical profession of this city and Northern Ohio will unite in recommending Dr. Scott to a place upon this board.

AN IMPORTANT COMMITTEE MEETING.

A committee consisting of delegates from several medical colleges of the middle United States met in Chicago, Feb. 15, upon the invitation of Dr. Bayard Holmes, Secretary of the American Medical College Association. The object of this committee was to formulate plans for a model curriculum for medical colleges belonging to the Association; these plans to be submitted to the Association for discussion at its regular annual meeting at Atlanta in May. This first committee was to consider especially the subjects relating to the normal human body, as anatomy, physiology, histology. The following institutions sent delegates: Detroit College of Medicine and Surgery, Dr. Walker; University of Iowa Medical Department, Dr. Middleton; Ft. Wayne Medical College, Dr. Stemen; Medical Department, University of Minnesota, Dr. Lee; Medical Department, University of Wooster, Dr. Ohlmacher; Northwestern University Medical School, Dr. Hall; Cincinnati College of Medicine and Surgery, Dr. Lewis; Ohio Medical University, Dr. Brown. The committee was in session three days, and the full report of its proceedings will be published in the Journal of the American Medical Association before the May meeting.

Among the subjects discussed at this meeting was the question of the amount of work that could be laid out for



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medical students. The general opinion was that medical students are badly overworked in our present system of instruction. Too many lectures and other exercises with too little time for study seems to be the prevailing fault, resulting in a superficial kind of cramming instead of a real education. It was unanimously decided to recommend 20 recitation periods a week as the maximum amount of work to be exacted of medical students. A recitation period was considered equivalent to one calendar hour of lectures or recitations or of two and a half hours of clinics or laboratory exercises. Thirty weeks for four years was taken as the average amount of time spent by students in our American medical schools, and on this basis of 600 recitation periods a year, the time allotment to the various branches was made. While most of the hours were filled with required work, several year hours were left open in each of the courses for elective work which the student could take under the advice of his dean.

The next meeting of a committee to consider the subjects relating to the diseased human body, will be held in Detroit early in March, and a third committee to consider the teaching of purely clinical studies will meet in Baltimore a few weeks later. It will be the duty of these committees to consider not only the time to be devoted to the various studies, but also to formulate methods of teaching, methods of examining and grading students; in a word, to consider in detail all possible improvements in medical education.

A. P. O.



REPORT ON PROGRESS IN SURGERY.*
By F. E. Bunts, M. D.

To report even in brief the work that has been done during the past year for the advancement of surgery would be a task of too great proportion for me to undertake. To select those things which savor distinctly of progress, is likewise a delicate task, for one must be more than ordinarily versed in the doings of the ancients to know just where resurrection

*Read before the Cuyahoga County Medical Society, February 6th, 1896.



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ends and progress begins. The antiseptic treatment of wounds was known and practiced under that name more than a century ago, and the modern treatment of gunshot wounds was so clearly and forcibly set forth by Percival Potts, that it is surprising that it was ever allowed to be buried and resurrected in these later days as one of the evidences of progress in surgery.

I shall confine myself rather to a few subjects to which

special attention has been directed during the past year.

1. SURGERY OF THE SPINAL CORD AND ITS APPENDAGES:

In a course of two lectures delivered by Wm. Thorburn, before the Royal College of Surgeons of England on this subject, he says: The dangers of the operation of laminectomy are not great, especially in view of the conditions it is intended to relieve. In regard to the mortality, 12 cases out of 70 operated upon for tuberculosis and in which laminectomy was performed, died, thus making a mortality of 17.1 per cent.; the cause being ascribed chiefly to shock.

In thirty-eight cases of stab wounds, fifteen died, nine of these deaths being from sepsis. In twenty-one non-fatal cases of wounds of the cord, under favorable circumstances, three fully recovered, 16 had paralysis, or anæsthesia, or both, and 2 were reported as improved. This justifies the general conclusion that in man we cannot hope for anatomical recovery after lesions of the spinal cord. In nerve roots, however, restoration of function may take place after suture.

Of fractures of the spine those of the laminæ are most important. The symptoms are by no means definite, and the diagnosis rests chiefly upon, first, the history, i. e., direct violence; second, the normal contour of the spine and presence of lateral mobility of one or more of the spinous processes in conjunction with obvious lesions of the cord. The most frequent mode of injury is the approximation of the laminæ of the vertebræ above to the body of that below, crushing the cord. Such crushing may be associated with permanent pressure, or with temporary pressure, as in fractures with recoil. The medullary symptoms may be due to hemorrhage also. The condition of gravitating hemorrhage is easily recognized; as the blood from some spinal vessel escapes, it gravitates to the lowest part of the spinal canal, causing paralysis by pressure, which paralysis rapidly extends upward as the collection of blood rises in the canal. In such a case Thorburn would advise laminectomy at seat of injury and an attempt to arrest hemorrhage, and give exit to the blood that could not be arrested, and, if necessary, a secondary laminectomy in lumbar region for drainage. He defines three varieties of cord injury which demand treatment:



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Permanent pressure on the cord.
 Temporary pressure on the cord.

3. Hemorrhage.

In the first, the lumen of the canal may be restored, but if the cord be injured, it is not capable of regeneration and little or no benefit may be expected.

He expresses the opinion that we are not yet able to treat with success the common injuries of the cord, and

summarizes his conclusions as follows:

1. In compound fractures, operate.

2. In fractures of spinous processes and laminæ with

injury to cord, operate.

3. In simple fractures and dislocations of bodies of vertebræ, if there is reasonable probability that injury is due to hemorrhage, operation is advisable, but in all other cases of this nature, we can not hope to do good, save where the injury is below the level of the first lumbar vertebra.

I might call your attention in this connection to a work by A. Chapault, Chirurgie Operative du Systime Nerveuse, published by Reuff et Cie, Paris. It is, perhaps, the only complete work in any language on the operative surgery of

the entire nervous system, central and peripheral.

ETIOLOGY AND TREATMENT OF CANCER.

Smith, (N. Y. Med. Jour., 1-5-'95,) after a historical study of this subject and its literature, and a description of his modes of research, says: "Whatever else has been said, however, in relation to the subject, these two factors stand out in bold relief, and they may be offered as the writer's conclusions:

1. Cancer presents a course and clinical aspect

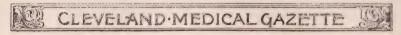
analogous to those formations of parasitic origin.

2. Within cancerous tissues occur bodies which closely resemble the different life stages of protozoa, of sporozoa, of

gregarinidæ.

Otto Busse, (Centralblatt fur Bact., 1894, and Virchow's Archiv, April, 1895,) discovered in a case which had been diagnosed as sarcoma of the tibia, numerous transparent bodies that could be cultivated, in bouillon, gelatin, blood serum, potato, etc. These were found to be saccharomyces or yeast fungi, and will grow and multiply in human bodies, causing a slow suppuration and a formation of granulation tissue rich in giant cells and inclusions.

Sanfelice, (Centralblatt fur Bact., 1895, No. 4, and Annali d'Igeine Sperimentali, Vol. V, Fas. 2,) by inject-



ing a certain form of yeast fungus cultivated from the air, into animals, caused new formations, very closely resembling

epithelioma.

Roncali, (Il Policlinico, Feb., 1895, and Centralb. fur Bakteriologie, Oct. 15, 1895,) describes certain parasites in adeno carcinoma of the ovary, which were identical in form and staining properties with the fungus experimented with by Sanfelice. Corselli and Frisco, (Centralbl. fur Bact., Oct. 15, 1895,) report the finding in a case of sarcoma of mesenteric lymph glands, parasites, presenting the same characteristics as the saccharomyces, and succeeding also in cultivating them on gelatin and agar.

Of course, all this is not proof of the origin of cancer, bu suggests that there may be some morbid processes due to the yeast fungus which have hitherto been regarded as cancerous.

The question of contagiousness of cancer is of considerable interest, and Guelliot of Reims calls attention in particular to contagiousness of epithelioma, he having collected 45 cases in which both husband and wife became affected.

In the treatment of cancer, nothing of importance has been suggested, though many things have been tried. The use of toxic products of the streptococcus erysipelatosis and bacillus prodigiosus has been continued and their indications for use more clearly determined. Up to May 31, 1894, Coley, (Med. Rec. Vol. 47, No. 3,) had treated 25 cases of inoperable sarcomas and 8 cases of inoperable carcinomas; improvement was reported in some cases of carcinomas, but no cures.

Of the sarcomas, he reported 6 cases of reasonable hope of permanent cures, as six months had elapsed with no evidence of return.

Since May 31, 1894, he has treated 13 cases of sarcoma, and 11 cases of carcinoma. In the cases of carcinomas, he has noted a retarding effect and some improvement.

In sarcomas, 3 entirely disappeared. Taking both sets of statistics, we have out of 38 cases of inoperable sarcomas, for such he has termed them, 9 cases which give promise of perfect cure. This, certainly, is a very encouraging report.

PROSTATIC HYPERTROPHY.

The subject of Prostatic Hypertrophy has attracted unusual attention during the past year, and White's operation, removal of the testicles for its relief, has had numerous followers, and reports of cases are almost uniformly favorable.

Possibly many of you are familiar with the elaborate resume of the subject by J. William White, but I shall

venture to present the following selections from his articles:

As to its etiology, he says: The close relationship

between the testicles and the accessory sexual glands, the prostate, Cowper's glands, and seminal vesicles, naturally leads to speculation as to a possible connection of the overgrowth with the testicular changes coming on with advancing years. In addition to the function of producing spermatozoa, the testicles determine the development of the attributes of masculinity. When full adult life is reached, this controlling influence probably ceases, then the disappearance of the necessity for a given product without coincident disappearance of vital energy which was expended in producing it, might conceivably result in hypertrophy of the organs intimately associated with those which were the source of supply.

Of 102 cases operated upon, 65 or 63.7 per cent. were reported as showing distinct decrease in size, while in 24 other cases the improvement in symptoms made it probable that the prostate had become smaller. In most cases the improvement and shrinking were rapid and marked.

The operation is to be preferred to suprapulic prostatectomy, because it has a lower mortality, and the return to health is more complete and rapid

to health is more complete and rapid.

No definite conclusions could be arrived at as to the value of unilateral castration, section of the vas, and ligation of the vascular structures of the cord.

He draws an analogy between fibromyomata of the uterus and the adeno-fibromata of the prostate, which is strengthened clinically by the almost identical effects of castration in both cases.

To summarize, he states that in 87.2 per cent. rapid atrophy followed castration. Cystitis disappeared or was greatly lessened in 52 per cent., and more or less bladder contractility returned in 66 per cent. Amelioration of most troublesome symptoms was relieved in 88 per cent., and a return to local conditions not far from normal occurred in 46.4 per cent. The percentage of deaths in 111 cases has been 7.1 per cent.

Among the numerous publications in the domain of surgery during the past year, I desire to call your attention to but one—Surgical Pathology and Therapeutics, by Jno. Collins Warren, M. D., published by W. B. Saunders. This I believe to be one of the most valuable works published in the last decade, and one that is of almost equal interest to both physician and surgeon. It has succeeded in creating order out of chaos and presents the modern view of things surgical in a clear, elegant, positive and yet conservative manner.



BY L. B. TUCKERMAN, M. D.

Notwithstanding all the improvements in methods of sterilization and pasteurization of milk and the efficient separation of its impurities by means of the centrifuge, DR. A. JACOBY still maintains the position he held over thirty years ago, viz: That cow's milk diluted, with or without the addition of milk or sugar, is not the best substitute for mother's milk in the feeding of infants. He cites the recent experiments of Wroblewski showing that while woman's casein during pepsin digestion retains its nuclein in solution and is fully digested; in cow's casein, the nuclein is not fully digested, but a "paranuclein" is deposited undissolved and undigested, and thus the infant fails to assimilate the phosphorus in which that proteid is rich. Moreover, there is an additional alkaloid in woman's casein not identical with either the known casein or with albumen. "Ergo," he says, "cow's milk is not woman's milk. It is not identical with Sterilization does not change its character. It merely obviates such dangers as result from the presence of pathogenic germs, and from premature acidulation. stitution of cow's milk, or of sterilized milk for woman's milk as the exclusive infant food, is a mistake. Experience teaches that digestive disorders, such as constipation or diarrhœa, and constitutional derangements such as rachitis are frequently produced by its persistent use, and it appears to be more than an occasional, (at least co-operative) cause of scurvy." And so Dr. Jacoby advises the addition of thin barley, rice or oatmeal water with the milk even in the very first days of infancy, both as a means of finely dividing and suspending the cow's milk casein, and of adding to the nutritiousness of the mixture. Four or five parts of water to one of milk is the dilution he prefers for the newly born, giving as his reason that "the demands of pepsin digestion and of rapid growth, and of the necessity of restitution of losses experienced by eliminations and excretions are just as many reasons for extra allowances of water in the diet of very young infants who have to rely on the services of others. Older children know how to find it and how to serve themselves. In addition, it is certainly true that a large amount of water passing through the kidneys removes the inconveniences and dangers of the peculiar physiological process which takes place in the first three weeks of every life, viz: Uric acid infractus, the results of which are gravel, renal calculus, (by no means rare), and nephritis. Indeed,

¹ Pediatrics, Jan., '96.

Among Our Exchanges.

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since the rather frequent adoption of my plan of supplying the very young with quantities of water, I hear less of renal complaints in them than I did dozens of years ago." Dr. Louis Starr, of Philadelphia, also cites several cases showing that sterilized milk when depended on as the sole diet, is not sufficiently nourishing to prevent scurvy, and in this respect pasteurized milk seems to be preferable to the sterilized. He says: "Among artificially fed infants, particularly those belonging to the wealthy classes where the surroundings are most favorable, and the supply of cow's milk as nearly perfect as possible, one encounters cases of malnutrition verging even upon simple atrophy, which are due solely to sterilization of the food, a fact readily established by the rapid improvement following the use of identically the same milk mixtures, either pasteurized or untreated by heat. In my opinion, the alterations produced in cow's milk by sterilization may also lead to the development of the complex of symptoms known as infantile scurvy." After citing five cases in evidence, he concludes: "In each of these cases the food was properly proportioned and had for its basis sound cow's milk, but sterilization had been uniformly employed in its preparation. All recovered rapidly upon the same food unsterilized, with the addition of a small quantity of raw beef-juice and orange-juice to the diet." Methods adapted to the resuscitation of the asphyxiated newly born are always of interest. Dr. Mark I. Knapp,3 of New York City, reports a case where suspension by the feet was successful where other methods seemed to promise only failure. The child was wrapped in warmed flannel and held up by the legs, head down. It began to gasp almost at once, and first irregular, then regular breathing followed, interrupted every ninth or tenth breath by an attempt to crv. Suspension was kept up for between forty and fifty minutes, by which time the child had begun to cry lustily, and was then put with its mother. It remained well. It is not at all to be wondered at that suspension, head downward, should avail in the asphyxia of the new-born, for it is the method in constant use in dealing with chloroform asphyxia. And it should be on theoretical grounds even more efficacious with the new-born, for their normal position in utero is head downward, so that the horizontal position with them would tend to produce syncope, just as the erect position does when one has long lain on the back.

² Am. Jour. Med. Sciences.

³ Med. Rec., Jan. 18, '96.



MEDICAL JURISPRUDENCE AND TOXICOLOGY. By Henry C. Chapman, M. D., Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College of Philadelphia; Member of the College of Physicians of Philadelphia, of the Academy of Natural Sciences of Philadelphia, of the American Philosophical Society, and of the Zoological Society of Philadelphia. 252 pages, with 55 illustrations and 6 plates, some of which are in colors. Second edition, revised and enlarged. Price, \$1.50 net. Philadelphia: W. B. Saunders, 1896.

As a teacher on the subject with which this manual deals, and after an experience of six years as coroner's physician to the City of Philadelphia, the author is certainly well qualified to write a book on this important branch of medicine. All the essential facts in Medical Jurisprudence and Toxicology are concisely and clearly set forth, and that a second edition should be demanded so soon after the appearance of the first is ample proof that the medical and the legal professions have found the book useful and reliable.

A GUIDE TO THE PRACTICAL EXAMINATION OF URINE. For the use of Physicians and Students. By James Tyson, M. D. Ninth Edition. 12mo, pp. 276. Revised and Corrected. With a Colored Plate and Wood Engravings. Philadelphia: P. Blakiston, Son & Co. 1895. Price, \$1.25.

Comment from us on this standard little book is almost superfluous. From its first appearance it has been a favorite because of the author's renown as a practical teacher, and the charm of simplicity with which as a writer he always succeeds in elucidating even intricate subjects. The present edition has been brought fully up to date, and no student or practitioner can afford to be without a copy of it.

An Atlas of Ophthalmoscopy, with an Introduction to the Use of the Opthalmoscope, by Dr. O. Haab. Translated and Edited by Ernest Clarke, M. D., B. S. (Lond.) Published by Wm. Wood & Co., New York, 1895.

Messrs. Wm. Wood & Co., who have done so much for the American profession in the way of supplying expensive books at moderate prices, have again in the form of Wood's Medical Hand Atlas demonstrated their wisdom as purveyors to the wants of the profession.

The plates printed in colors, some of them requiring





Notes and Comments.

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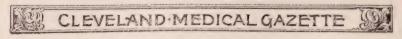
twenty-one impressions of various shades and tints to secure the proper effects, have been prepared by one of the largest and most celebrated chromo-lithographers in Bavaria. The arrangements which have been made for the production of these beautiful plates were such as not only to insure the highest artistic excellence, but also to enable the publishers to sell the volumes at a price which has never before been equaled or approached for cheapness. The scientific faithfulness to nature of these plates is vouched for by the eminent medical gentlemen under whose direct supervision they have been drawn and colored. The volumes each contain from 50 to 75 or more full page plates, many of them comprising several figures, together with appropriate descriptive text and a condensed outline of the subject to which it is devoted. These books are uniformly about five by seven and a half inches in size, most convenient for ready use and reference. The descriptive matter for each plate is always printed on the page facing it for convenience of study.

The Atlas of Ophthalmoscopy before us more than meets our expectation. And no work since the Classic Atlas of Leibrich so fully meets the requirements of the ophthalmologists. And we are sure there is no one interested in the study of medical ophthalmoscopy who would not willingly pay the price of the entire set for this volume

alone.



Modern Medical Science says:—They say that at the Battle Creek laboratories of hygiene, the professedly cooked or nearly cooked cereals that are offered to the public for a quick breakfast while you wait, have been carefully tested and found in every case to be untrustworthy in their pretensions, and unwholesome if prepared accordingly. "The best of these preparations requires from three to four hours' thorough cooking in a double boiler before they are in proper condition to enter the stomach." Moreover, in any case, they are suitable only for vigorous digestive powers. Their preponderance of starch makes tenacious masses in the stomach, which are very slowly dug away by the gastric juice, and which are but slightly exposed to the action of their chief solvent, the saliva.



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Mr. Fulkinghorn—There is a very fine picture of our minister in to-day's paper. Mrs. Fulkinghorn—Indeed! What has he been cured of?—American Prac. and News.

Dr. C. B. Parker just returned from a visit to Johns Hopkins and other Eastern schools investigating methods of instruction, and comes back well pleased with the work done in our home medical schools, as will be learned from his interesting letter in this number.

Dr. John P. Sawyer will return about March 1st, from a three weeks' stay at Hot Springs.

Dr. Daniel Lewis has resigned the editorship of the Medical Review.

Dr. G. W. Crife has returned from a two weeks' visit to various cities where medical college buildings have been recently erected. He is brim full of new ideas which Architect Badgley hopes to incorporate in the plans he is now preparing for the new Ohio Wesley (Wooster) Medical College building.

The Pithecanthropus Erectus.—In Science for December 20, Dr. D. G. Brinton gives his editorial review of the newest facts regarding the prehistoric man from Java. This remarkable find of the Dutch surgeon, Dr. Dubois, of a creature considered by him to be intermediate between man and the apes, has been the subject of wide discussion dur-

ing the past year. Dr. Brinton says:

"So many have been the articles for and against the accuracy of his statements and conclusions, that the Dutch government sent for him to come in person and bring all his specimens to the International Zoological Congress in Leydey, in October last. He punctually appeared, with a large number of mammalian bones from the formation in which the Pithecanthropus was found, and an additional tooth of the animal itself. The geological experts present decided that the various bones indicated the oldest pleistocene or else the youngest pliocene. The anatomists expressed themselves about the skull, teeth and femur of the alleged 'missing link.' Professor Virchow, probably the most conservative, maintained that the bones were of an ape; but an ape generically distinct from any known; and if the skull and femur belonged to the same individual, then it was an erect ape, walking like a man; but he would not acknowledge that it bridged the gap between the anthropus and the anthropoid. Practically the same result was reached by the eminent French anatomist, Dr. Manouvrier. He studied the originals in the possession of Dr. Dubois; and he declares there can be no doubt that in them we see the

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remains of a creature intermediate between man and the ape, walking erect, with a cranium like that of the gibbons, but much larger than any existing gibbon. The conclusion is indisputable that in the Pithecanthropus we have an animal higher than the highest ape and lower than the lowest man.—The Journal of the American Medical Association.

Dr. A. G. Hart.—The friends of Dr. Hart will be pleased to learn that he is slowly recovering from a long and tedious illness.

The Medical Practice Bill passed the Ohio State Senate unanimously, and is now a law. This news seems almost too good to be true. We hope those members of the profession who are in touch with the Governor will see that men good and true are put on the Board of Medical Examiners. Care must be taken to keep out the medical politicians who so long retarded medical legislation in this state.

The Enterprising Doctor.—The curtain had risen on the third act, and the momentary hush that preceded the resumption of the performance on the stage was broken by a stentorian voice from the rear of the auditorium: "Is Dr. Higginspiker in the house?" A tall, heavily-whiskered man, occupying a front seat, rose up. "If Dr. Higginspiker is in the house," resumed the stentorian voice, "he told me I was to come here and call him out at 10 o'clock!" Whereupon Dr. Higginspiker, looking very red, picked up his hat and cane and walked down the aisle amid loud and enthusiastic applause.—Med. Times.

The N. O. D. Medical Society meets at Bellevue, Ohio, March 19, 1896. An unusually interesting programme.

Dr. B. O. Coates has returned from a visit to his old home, Toronto, Can.

The American Medical Association.—The Forty-seventh Annual Session will be held at Atlanta, Ga., May 5, 6, 7, 8. Quite a number of Cleveland physicians are preparing papers. Is it not about time to invite the Association to visit Cleveland again?

Dr. B. L. Milliken has gone to Florida for a few weeks.

The Ohio State Medical Society will meet at Columbus in May. Would it not be advisable to postpone this meeting until June, as it will be difficult for members to attend both this meeting and the one at Atlanta in the same month.



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Dr. F. E. Bunts and wife expects soon to sail for Europe to be gone most of the summer.

Dr. Foote, late house physician of Lakeside Hospital, has gone to Europe for a year.

Simms' Position.—The story of the man out West who moved so often that the very chickens when they saw the covered wagon brought out, fell on their backs to have their feet tied for the journey, is familiar to every one. But it remains for a woman out West to afford a new illustration of the force of habit. Having some chronic uterine complaint for the treatment of which she had suffered many things of many physicians, one day she said to a friend, "Whenever I see a physician, I feel like taking Simms' position."—Fort Wayne Medical Magazine.

Duration of Intubation of Diphtheria Patients Before and During Serum Treatment.—Johann Bokai (Deutsch. med. Woch., 1895, No. 46.)—Before the introduction of serum the author intubated 673 cases, of whom 223 recovered. Under the use of serum he intubated 90 cases, of whom 45 recovered. After comparing these results and carefully reviewing the literature upon the subject, he concludes as follows:

1. The average duration of intubation in his hospital before the serum period was 79 hours, and 61 hours during this period. Accordingly, serum-therapy has reduced the average period of intubation in his cases 18 hours.

2. The duration of time before final extubation varies within very wide limits—in the author's experience between 4 and 360 hours.

3. From the fact that the tube remained 120 hours, or longer, in 16.2 per cent. of his recoveries after intubation, he does not believe that secondary tracheotomy should be performed to prevent death, when final extubation is not advisable after 120 hours. According to his views, the time for tracheotomy cannot be definitely fixed. The presence of severe decubitus is an indication for the bloody procedure; but fear that this condition may appear is not sufficient to warrant tracheotomy.—Am. Med. Surg. Bulletin.

The Pineal Eye.—The pineal gland, by reason of its impaired median condition, its situation at the entrance of the cerebral cavities and its ribbon-like peduncles have always excited the curiosity of observers, and without knowing its structure they have attributed the most dissimilar functions to it. Galen, combating the opinions of his predecessors, who believed it to be a door for the mind, asserted that it only served to join the two veins which he described in the choroid plexus. The celebrated philosopher, Rene Des-



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cartes located the seat of the soul here. For he said the rest of the brain is bilateral, and we have two hands, two eyes, etc., while we have only a single perception of the same thing at one time. Now, there must be a place where the two impressions we get from the double organs of our senses were joined in one before reaching the soul. As the pineal gland answers the requirements it must be the principal seat of the soul. Margendie believed it to be the valve regulating the flow of the cerebro-spinal fluid. While these theories are very interesting we are more concerned at present in the question whether this "gland" has any connection with a median impaired eye of a far distant ancestor. More recent anatomic studies have shown that this organ exists in all vertebrates, occurring with annoying persistence from man through the series of vertebrate brains down almost to that miserable travesty, the lancelet. It is more developed in fishes and reptiles than in mammals, it appears at an early period in man (about the fifth week) and arises in the same fashion in all animals, as an epithelial invagination from the thalamencephalon, the brain which gives rise to the optic tracts and to the middle ventricle. As far back as 1868 Leudig recognized the sensorial nature of this organ and called it the "frontal organ" and Gotte showed it to be identical with the epiphysis. Rabl-Ruckhard in 1882 advanced the hypothesis that it might be a visual organ, or one for a thermic sense belonging to animals of past geologic epochs. In 1886 Dr. Graaf discovered a crystalline and vitreous in the epiphysis of lizards, and his discovery has been confirmed and extended by Baldwin Spencer. Early in the development of the vertebrate brain a median hollow diverticulum juts out from the roof of the thalamencephalon. It is generally found persistent through life as a long tube, but sometimes the distal end becomes lobular and consists of a number of follicles. In man and other mammals these follicles become more or less solid forming the pineal gland. Among lizards we find this body presenting all the characteristics of an eye. In this group the pineal eye is most completely developed in the hatteria or sphenodon, an almost extinct lizard of New Zealand. Here we have an optic vesicle, a crystalline lens, a retina and an optic nerve, the interior of the vesicle filled with transparent tissue, the vesicle is situated in a median foramen in the parietal bone, outside the cranial cavity, and covered only by the skin, through which it may be recognized by a modified scale without pigment, easily distinguished from the rest of the dermal covering. other genera of lizards the eyes become more and more



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rudimentary until in seps, anguis, etc., the nerve does not connect with the eye. This eye should be present in forms lower than the reptilia, the amphibia and fishes. While it is present in the extinct amphibia its existence in fishes is yet uncertain. Dean' thought that in dinichthys, a fossil fish from the Devonian, a median opening in the head enclosed a pineal eve, but in a more recent work2 he abandons this view. In birds and mammals the epiphysis is completely degenerated and inside the skull. Its function in ancestral vertebrates is supposed to have been to allow the possessor to look up while lying partly buried in mud or sand, and as the paired eyes developed, this degenerated. In man the epithelial vesicle ramifies into tubes, the connective tissue capsule surrounding these strangles them so to speak, and closes them off into independent cavities. degeneration of the organ is manifested not only by the cystic formation and by the pigmentary infiltration, but also by the almost constant presence of calcareous concretions in the gland itself, its peduncles or in the neighboring choroid plexus (Charpu). There is no essential difference between the pineal gland of man and that of the anthropoid apes. So then, we have a structure whose functioning in extinct saurians and some of their descendants of the present day, has degenerated and retreated within the skull, and its origin or purpose would be a mystery were it not for the light afforded by comparative anatomy and embryology. If the pineal gland and eve arises singly from the train it will modify some of our ideas concerning the origin of the paired eves. The latter are by most modern biologists believed to be derived through evolution from the segmental sense organs of invertebrates. Organs for the perception of the senses are divided into lower and higher. In the former are the tactile sense organs and in the higher those for vision, olfaction, audition and gustation. It will be noticed that these higher organs are all situated in depressions specially provided for them in the head. It has been found that though the gulf between tactile and visual impressions is great, it has been bridged by some of the annelids (leeches, etc.) In these organisms we find pure tactile cells at one end of the body, and pure visual cells at the other with a mixture of the two in the middle, or we may have all the tactile cells changed into visual. While search is being made for confirmation of this hypothesis in other classes of animals, the pineal eye presents a grave objection to this view, for the segmented sense organs are all double and if the pineal gland proves to be of single origin, two of

¹ N. Y. Rept. on Fisheries, 1891, p. 310.

² Fishes-Living and Extinct, 1895, p. 55.





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these segmented organs must have coalesced to form it. At this juncture Locy comes to the rescue. This author3 from a study of shark embryos believes that in addition to the two optic vesicles for the paired eyes, two pairs of accessory vesicles appear at an early stage of development. This requires further study and if confirmed would go to prove that the pineal eye was paired also. In this connection it may be noted that the chitons, or coat of mail shells, possess numerous ocelli on their shells, a fact discovered in 1884 by the lamented Mosely. One species corephium aculeatum has over 12,000. In some genera the eyes are scattered about irregularly over the shell, in others they are arranged symmetrically, the latter form is looked upon as being a later development from the earlier irregular distribution. At the present writing while waiting further investigations we have strong reasons for believing that our primitive hermaphrodite gill-bearing ancestors had eyes in the "back of their heads" as the proverb says. - Journal of A. M. A.

3 Anat. Anzeiger, ix. p. 169.

Oculist-Opticians.—The great prevalence of errors of refraction in the human eye and the modern recognition of the important relation they sustain to weak eyes, defective vision, headache and certain reflex phenomena affecting the general nervous system, has served not only to attract many physicians into the special field of ophthalmic practice, but has made possible a lucrative business for large numbers of skilled opticians, whose special function it is to prepare correcting glasses in conformity with the more or less elaborate mathematic formulæ written by the ophthalmic surgeon. Great good has resulted to the community in the relief of pain and weak eyes, and in affording increased efficiency for work in all pursuits requiring accurate vision.

It is cause for serious regret, however, that the increasing demand for correcting glasses has excited the cupidity of a horde of persons who are always to be found hanging on by the fringe of professional life, but thoroughly imbued with the spirit of the charlatan. As, in the field of general medicine, men of this class turn their attention to irregular practice or to the manufacture of nostrums and proprietary drugs with secret formulæ, so, in ophthalmology, without other consideration than the hope of financial gain, they have turned their attention to the furnishing of spectacles to the multitude. Unfortunately, a great impetus was given to this evil through the efforts of several large optical firms by whom the pernicious seed was sown broadcast throughout the country, and has borne fruit in the formation of innumerable "optical schools" whence emanate, after a six-weeks'





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course of instruction, large numbers of so-called "oculistopticians," duly supplied with the diploma of the school, a box of trial glasses, a table of test letters, an astigmatic chart, and such other paraphernalia as they can be induced to purchase. With rare exceptions, these "graduates" are without medical training, have the merest outline knowledge of the gross anatomy of the eye, and have no understanding of the physiology of vision, while rudimentary instruction in optics which they have received gives them no adequate knowledge of the properties of lenses. They return to their homes, establish themselves in some jeweler's store, and, by glaring advertisements of "examinations free," attract large numbers of persons, with uncomfortable or painful eyes, into their warily-spread net. It is needless to say that these emerge with a pair of glasses. Such is the inevitable result; it matters not whether the discomfort complained of is the result of eye strain, or of a pathologic lesion. Every ophthalmic surgeon is frequently called upon, not only to remove from his patients concave glasses when convex ones were required, or the weakest spherical lenses, for which an exorbitant price had been paid, when compound glasses were needed to correct an existing astigmatism, but, even worse than this; many persons, suffering from progressing pathologic changes affecting the intra-ocular membranes. have pinned their faith to the "oculist-optician," receiving frequent changes in their glasses until irreparable damage has been done by the advancing disease.

We have seen many cases of choroiditis thus unfortunately placed, and can recall two cases of patients with optic neuritis and headache, both of whom had received at . the hands of the same "oculist-optician" successive pairs of glasses, until the stage of atrophy, with the narrowing field, and progressive loss of vision drove them to seek professional aid. Both cases eventuated in total loss of sight. While this might have been the result, in spite of professional advice, nevertheless the only time during which treatment could have been availing, was wasted under the fraudulent advice of an uneducated charlatan. It may be said that he was honest in his endeavor to relieve by glasses; but nevertheless his ignorance was, under the circumstances, a The frequent and intimate association of ocular affections with general disease, and the fact that the symptoms simulate so closely those which grow out of the need for correction of some optical defect, is sufficient reason for giving to the furnishing of glasses the same legal status which obtains in the prescribing of drugs. No one, not legally entitled to practice medicine by virtue of his attested medical training, should be permitted to enter this field of

physiologic optics. - The Philadelphia Polyclinic.





CHOREA.*

BY CHARLES J. ALDRICH.

Neurologist to Cleveland General Hospital Dispensary.

Among the acquired neuroses, none is so common as chorea, and none more worthy of study. It comprises nearly 5% of the nervous diseases which seek our dispensaries, and occurs two and a half times as frequent in girls as in boys.

It occurs rarely under five years; few cases are seen after twenty, although occasionally a case of senile chorea is met with.

According to Weir Mitchell, chorea is extremely rare in the full blood negro.

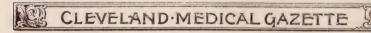
Dana says it is most common in children of German, Hebrew and Portuguese parentage.

The disease affects the children of every grade of society. It occurs in all climates, and prevails more in urban populations.

Seasonal relation seems to be established by statistics,

*Read at Cuyahoga County Medical Society at Twinsburg, Ohio, May, 1895.

- 1 Starr. Familiar Forms of Nervous Diseases, p. 234.
- 2 Dana's Text Book of Nervous Diseases, p. 436.
- 8 Gowever's Diseases of The Nervous System, Vol. II, p. 593.



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spring, autumn and winter, in the order of their mention, claiming the most cases.4

Not uncommonly there exists a special tendency to the disease in certain families. This probably depends upon the inheritance of temperament, as children of nervous, highly organized parents seem specially liable to the disease. The same can be said of the offsprings of rheumatic parents. Psychical influences evidently play an important role.

Osler found 15.5% of 86 cases were attributed to fright.⁵

Any cause of mental worry or undue excitement is evidently a contributing cause. The strain in education, particularly in young girls during the second decade, the period, to use Clouston's phrase of "co-ordination of motion and emotion," is an important factor.6

The relation of chorea to eye strain has excited much discussion.

I believe the oculists have failed to make a case, as the lawyers would say, but it is perfectly reasonable to suppose that anything which would cause irritation of the nerve centres, while perhaps unable of itself to cause chorea, would prove an active factor in prolonging the case because of its irritating qualities, and of the peculiar erethysm of the nervous system of the choreaic.

My friend, Dr. Baker, tells me that he has seen cases, which had resisted the usual remedies, improve amazingly when the eyes were properly cared for.

The relation of rheumatism to chorea is evident to any close observer. Osler has given most convincing proofs. What that relation is, is a question for the future.

Statistics seem to show all the way from 157 to 72% of the reported cases of chorea to have manifested arthritic symptoms or family history of the same. The rheumatic manifestations of childhood are so varied and so often at variance with our accepted notions of rheumatism that I am convinced that this protean disease too often escapes the attention which its pernicious activity entitles it.

- 4 Morris J. Lewis. Transactions of the Association of American Physicians, Vol. VII, 1892.

- 5 On Chorea, p. 10.
 6 Neuroses of Development.
 7 Osler. Practice of Medicine, p. 930.
 8 Tylden. St. Bart. Hosp. Rep.





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Many sore throats; unexplainable attacks of fever; so-called growing pains; urticaria, erythema nodosum, and severe and unexplainable attacks of vomiting I am convinced are caused by this chamelion, rheumatism of childhood.

I have now in mind, a delicate boy of ten, who came to the Department of Nervous Diseases at the Dispensary of the Cleveland General Hospital, who was born of a woman who has had rheumatism since the age of fifteen. His father was a delicate man who suffers much from sore throat and sub-acute arthritis. His paternal grandfather had rheumatism and was cut five times for stone. The father had three brothers, all of whom had had articular rheumatism. One of them died of consumption. One sister has had rheumatism and "spinal trouble." The maternal grandfather died of inflammatory rheumatism.

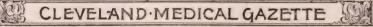
What could we expect of a child inheriting such a train of evil tendencies, the trend of which is all in one direction. Can we wonder that a child of such parents suffered from marked arthritic symptoms from the age of 15 months to seven years!

He had inflammation of bladder at the tender age of nine months. When three years old, Dr. C. B. Parker cut for stone. Red sand was noticed in the urine since the child became old enough to use urinal, and napkins were stained red during infancy. He has had repeated attacks of tonsilitis from infancy to present time; had symptoms of epilepsy; developed a meningitis at five which dulled the intellect, and left a partial optic neuritis from which he suffers to this day. He has had frequent headaches since being old enough to describe and locate pain.

When six years old, began to drop things, and was excessively restless and fidgety. Had many attacks of urticaria and erythema, which latter so resembled measles, and was accompanied by sore throat and fever, that they were believed to be attacks of measles. One year ago last April he again had the "measles" (?) which was followed by chicken pox. In June, had a severe attack of chorea which was energetically treated by a Canadian physician. It lasted nine weeks.

Bromo-lithia water and Basham's mixture with arsenic

⁹ Cheadle. Cyclo. of Diseases of Children, p. 786.



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after meals have done wonders for this boy. I hand you a picture of this lad which shows what anti-lithic medication, cod liver oil and diet can do for such unfortunates. He has had a typical attack of rheumatic erythema since attending the dispensary. A soft mitral murmur is heard over the apex, which will in time disappear as compensation is perfected. A history like this needs no comment. It is replete with therapeutic suggestions.

Malaria seems to stand in a causative relation if Kinnicut and Wood are right. Anæmia, Osler says, is more often a sequence than a causal factor. This statement seems strange when, as a matter of practical experience, most medical men remark an underlying anæmia as an early and causative factor in the disease.

Osler believes chorea to be an infectious disease, and its being a well recognized fact that any infectious agent finds more ready entrance to the body of an anæmic, it is hard to understand the grounds on which he rejects anæmia as a causative factor.

Chorea sometimes begins abruptly, but I am persuaded that it does not so develop as frequently as the books tell us. In the case just related, his teacher scolded because of wonderfully long and oddly directed lines involuntarily made while writing. Had irregular incordinated movements, but the worrying mother was told by the physician that it was "merely nervousness."

The following case which came to the dispensary last November, aptly illustrates these premonitory phenomena of chorea, also the preceding anæmia. O. L., No. 177. Female, aet. 14. U. S. born. Good heredity. Has always been quite healthy as a child, but was ever pale, nervous and active. During the last three years has had spasmodic, irregular discharges of urine, always occurring in the day time. These evacuations did not include the contents of the bladder, usually but a comparatively small amount passed. These discharges had no reference to the amount of urine which the bladder contained at the time. Her mother says "she was always a fidgety child, never still five minutes at a time." Mother often called her "butter

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fingers," because of a marked tendency to drop things, especially from the left hand. She has never menstruated. In May, 1894, she got thin and pale, and lost vitality and spirits. Old ladies said she had "green sickness." The last week in May she suddenly developed a left hemi chorea in which the incordinated movements extended throughout the whole left side, including the face. The movements were preceded one day by a true paralytic chorea of the same side, with dragging of the foot and involuntary opening of the hand with inability to close it. Choreic movements did not interfere with sleep for first week, but second week sedatives were required. Movements began to wear away in about four weeks. She returned to school in September, but became worse; but little movements were seen, but hand dropped powerless and foot again dragged.

Arsenic, iron, and large doses of quinine have apparently cured her. The bladder difficulty, while better, is still left as a warning that the appearance of the chorea may be looked for at any time.

The bladder chorea in this case, coupled with the nervous condition of the child, were enough to have warned the physician, and along with the anæmia and "butter-fingers" furnish an excellent example of the premonitory phenomena of chorea.

Like observations convince me that premonitory symptoms are the rule and in many cases, although somewhat striking and prolonged, are not observed or interpreted.

Mental disturbances are frequently present. They take the form of diminution of the moral sense; loss of the powers of attention and memory and the whole range of perceptive faculties may be blunted.¹¹

The following case will illustrate several phases touched upon, and for this reason is related in full.

J. M., female child, aet. $3\frac{1}{2}$ years.

I was called in January to see her because of a severe attack of urticaria. She had fever and had been complaining of pains in her legs in the indefinite way of childhood. Mother has had rheumatism; father healthy. There being nothing but rheumatism to account for the

¹¹ Sinkler. Nervous Diseases by American Authors, p. 239.

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eruption, sodii salicylate was prescribed. The rash and other symptoms promptly disappeared.

Two weeks later, I was again called and found a severe double chorea, with loss of speech. She had screaming spells every night and seemed terrorized for about an hour. Patient can walk but few steps without falling. Saliva drools from the mouth; is deficient in both apprehension and attention. Temperature, 100.5; circulation 130, and irregular. Soft endocardial murmurs were heard over heart. Examination difficult on account of the aimless flopping and random jumping of the whole body, which is covered with bruises, resulting from her severe choreiform movements.

Antipyrine and chloral to quiet the nerves; opium and aconite for the rapid heart action; salicylate of soda for the rheumatism, which I believe to have been the underlying cause, worked marvels in her case, to my surprise and to the confusion of the grave prognosis which the severity of the case had warranted me in giving. She soon slept well, became more quiet, heart's action slowed down, and she began to sleep well at the end of ten days. The third week she was put on large doses of quinine and antipyrine every three hours, with arsenic pushed to its physiological effect.

Notwithstanding the severity of the case, her choreic movements were gone in three weeks, but she developed a vicious, fretful disposition which makes life a burden to her mother. Persistence in the treatment has done little for this remarkable change of character.

The prophylactic treatment of chorea must be left with the family physician, who, while in and out among those whose health and lives are in his hands, should narrowly watch the children, especially the girls, for signs of chorea. His attention should be fixed upon nervous, highly organized children, especially those of rheumatic parentage; pale, fidgety girls, who are in the race for place, prizes, and pride in our educational institutions;

"Girls, standing with reluctant feet, Where the brook and river meet."

Those who have had chorea should be put under a



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course of treatment every three or four months, especially during the spring and fall months. Thus the inherent tendency to relapse which this disease possesses can in some measure be forestalled.

After malarial and rheumatic diseases of children a course of iron, quinine, and arsenic should be maintained for some time. Fidgety children who manifest choreic symptoms should be rigorously treated with tonics, especially arsenic. Ascarides, eye-strain, constipation, malaria, mental fret, or school worry should be sought out and remedied.

In the treatment of the attack itself, rest is the most important therapeutical measure; rest in bed, rest of mind by seclusion if possible; rest for the nervous system by the administration of chloral and bromides to produce sleep, opiates and antipyrine for the morbid muscular action; rest for the excited vascular system and overworked heart by aconite, opium, and the precordial ice bag. Secure rest by removing any exciting cause, which should be persistently and energetically pointed out.

To treat chorea ably, one must be a veritable Vidoc in diagnosis and resourceful in therapeutics.

Are there any remedies which can be called curative? Perhaps not, yet in arsenic and quinine in large doses, and in some cases antipyrine, we have remedies which seem to do good and to modify and curtail the course of the disease. Environment, country air, nutritious diet, and pleasant companionship are great synergists to all forms of medication, and should not be neglected. 637 Central Ave.

CURE BY VENESECTION IN A CASE OF PULMON-ARY ŒDEMA OCCURRING DURING AN EXTENSIVE LOBAR PNEUMONIA.

BY CHARLES GOODMAN, M. D.

House Staff, Mt. Sinai Hospital, New York City.

While the science of therapeutics is making great strides with the introduction of new coal-tar products and modern serum therapy, we are too apt to forget the remedial measures which often yielded such good results in the hands of our



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forefathers. The following case illustrates the value of venesection, a procedure which for a long time was popular, but which is hardly heard of to-day.

Abe A., aet. 17, ice man by occupation, entered the service of Dr. Alfred Meyer at Mt. Sinai Hospital, New York, September 4, 1895. Four days previous he had been seized with a chill, followed by headache, vomiting, pain in the right side of his chest, cough, expectoration and coryza. When he entered the hospital on September 4, his pulse was 108, respiration 30, temperature 103° F. He had a beginning pneumonia with high pitched percussion note, increased voice and breathing, and subcrepitant rales in the right upper lobe anteriorly, and dullness with bronchial voice and breathing, crepitant and subcrepitant rales over the corresponding area posteriorly. September 7, the seventh day of the disease, the dullness, bronchial voice and breathing and crepitant rales extended over the entire right lung.

The temperature had gone up to 105.2° F., there was marked cyanosis and the patient was wildly delirious.

On the ninth day the temperature rose to 106.8°, pulse 140, and ædema of lungs set in. There was alternating delirium and stupor, urine and fæces were passed involuntarily. In spite of heroic stimulation the patient sank rapidly. The tenth day the pulse was 160, large and bounding; cyanosis was more marked; the veins of the neck distended, and the entire venous system was engorged. The right side of the heart seemed to be unable to relieve itself of the accumulation of blood. To relieve it artificially by venesection suggested itself to me. This operation was accordingly performed in the following manner: The arm was supinated; a few turns of bandage were applied as a constrictor about the middle of the upper arm to render the veins prominent. The anterior surface of the forearm was thoroughly cleaned with soap and water, followed by ether, and finally 1-2000 solution of bichloride was applied. cutaneous incision 1½ inches long was made, exposing the median-basilic vein. This was separated from the surrounding tissues and then slit longitudinally. Eighteen ounces of blood were withdrawn and further hemorrhage was controlled by a compress of sterilized gauze and bandage. The constrictor was now removed.

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It will be seen that the procedure differs from the method of venesection described in the text books, inasmuch as the vein and skin are usually pierced and severed at one stroke of the knife. The steps that were taken in this case, however, were exactly the primary steps of the operation for infusion of saline solution. This was done purposely, for had the venesection failed in its purpose in relieving the congestion of the venous system, and had the loss of blood weakened the patient, a quart of sterilized 0.6% salt solution at a temperature 100° F. which had been prepared for the purpose would have been thrown from a fountain syringe into the vein. The result of the depletion was soon manifest. The laboring heart, no longer overpowered by the engorged blood, quieted down, the cyanosis diminished, the pulse became slower, more regular, its bounding quality disappeared, and in half an hour the œdema of the lungs had cleared up. On the following day the temperature was below 103°, the delirium disappeared and the case began to look hopeful. The crisis, however, was not reached until the fourteenth day. Convalescence was interrupted by a pleurisy with effusion, which developed in the left chest. This disappeared under the use of diuretics. The patient recovered rapidly, and on the nineteenth of October was discharged cured.

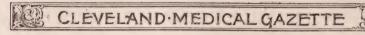
RANDOM THOUGHTS CONCERNING A FEW CONTAGIOUS DISEASES.*

BY G. M. CLOUSE, M. D., COLUMBUS, O.

In the city of Columbus, during the last two months, (September and October) there were 98 cases of diphtheria and 175 cases of scarlet fever reported to our Health Board. From diphtheria there were 18 deaths, or $18\frac{1}{3}$ per cent. From scarlet fever there were two deaths, or little more than one per cent. The two together there were 273 cases with a mortality of seven per cent.

Is the frequent occurrence of these two diseases due to the error of diagnosis, the mildness of the type of the dis-

^{*}Read before Central Ohio Medical Society, Nov. 7th, 1895.



ease, or the failure of the germs to have been killed? Is the very low mortality of seven per cent. due to the efficiency of the treatment?

No physician is so proficient but what he can and does mistake true, for false diphtheria and vice versa, and either for tonsilitis. The culture-tubes only decide whether or not the Klebs-Loeffler bacillus is present; and the report is received that it is, or is not true diphtheria. (These reports have been greatly lessened in value due to the tardiness for some cause.) If the report comes back that the case is not true diphtheria, it may be too lightly considered, while at the same time it may be a case of false diphtheria which is due to streptobacteria, and which has a mortality of about five per cent. True diphtheria has a mortality of about 25 per cent. The physician has often heard a layman say that the child did not have scarlet fever, but the scarlet rash; but Dr. A. said it was "only scarletina." The child may only show a slight sore throat with a temporary and scattered eruption on the neck, undetected fever, and goes to school "not feeling well." The physician may have forgotten and the laymen never known that the terms Scarletina, Scarlet Fever and Scarlet Rash are one and the same disease but synonymously used, and the mistake is not discovered until an epidemic is threatening, or some sequel arises which is traceable to the date of "not feeling well." Sometimes the symptoms of scarlet fever and diphtheria will be so manifested simultaneously in the case or family that it is difficult to clinically distinguish which one is the primary disease. This fact was forcibly noticed by me only three months ago, when a family of three children sickened as follows:

The first, ten years old, with symptoms of very mild scarlet fever, got well, and in three weeks after first sickened, the second, seven years old, gave symptoms of typical scarlet fever and desquamated profusely. In three days after the second took sick, the third, five years old, sickened with symptoms of scarlet fever for about 48 hours, then this condition abated to take on symptoms of diphtheria, from which he died in ten days. The membrane not only extended into the nasal cavity, but down low enough to cause a marked croup.

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The contagium that remains lurking in crevices, clothing, toys, books, sewers, vaults, on cats or dogs, etc., is to my mind the greatest cause of perpetuating these maladies. It is practical and just for the Board of Health to thoroughly and officially disinfect the house of all reported cases of contagious diseases at the proper time. During the progress of the disease the physician should be satisfied that all excretions from the sick are rendered inert before thrown The way it is many times done now, when the patient is convalescent, the blank for the removal of the placard is handed to the physician to be filled out, and he asks, as he always should, "have you thoroughly disinfected according to the printed instructions handed you?" The answer is always "yes" or an insinuation that such has been done. If asked to explain what and how all was done, you will find that a majority of disinfections consisted in scrubbing the floor, burning a handful of sulphur on a stove, and a few hours' airing. The physician fills and signs the blank, the placard is removed and all is safe! There were no antiseptic solutions applied; nor four pounds of sulphur to a 1000 cubic feet was burned in a way to cause a damp vapor. When the physician was signing the blank through such error, he was committing another error perhaps by permitting the placard to be removed a week too soon. These are errors that many of us make and is the primary cause of the spread and frequency of these diseases.

The treatment is wonderfully efficient to cause a reduction of eighteen per cent. in the mortality of these two diseases. Certainly there were errors in the diagnosis of cases reported, but if an error is ever justified, it is when tonsilitis is mistaken for diphtheria and the public given the benefit of the doubt. I believe that whooping cough and measles should receive the same prophylactic treatment as scarlet fever. It is more desirable, less expensive and more scientific to prevent a disease than to cure it. And I dare say that the treatment of many if not all diseases will be prophylaxis and surgery. It is rapidly coming and already in sight, yet you and I may never see prophylaxis in the fullness of its greatest results.

In regard to the medical treatment of diphtheria, I have

learned to favor nutrition, stimulants, mercury, iron, and hydrogen dioxide. It is my custom to early establish and maintain throughout, a good nutrition, and brandy is given so early that it long precedes the indication. Waiting to see the need of stimulants is like waiting to see the symptoms of nephritis following scarlet fever before urinalysis is made. If good nutrition and stimulants are kept up, you have a foundation upon which to pile your drugs and complete your success.

Either, one grain dose of calomel every two hours with local spray of hydrogen dioxide, or, ten to twenty drops of equal parts glycerine and tincture of iron given in water every fifteen to thirty minutes to a child of five years, has proven valuable. I have much respect for others' opinions, but in my limited clinical experience I have failed to see bad after-effects from the use of calomel or iron.

Inhalations should be begun as soon as the first croupish cough is heard. To wait for advanced indications for intubation is as erroneous as waiting for depression before giving stimulants, or the symptoms of nephritis before making urinalysis. The confined fumes by volatilizing ten to twenty grains of calomel every two or three hours, or the vapor of slacking gray-lime; or the constant evaporation of a combination of turpentine, eucalyptus and carbolic acid, is to me theoretically scientific, and the proof is the clinical results.

As to antitoxins, much is yet to be learned, but I believe through such theory we will be led to the goal of prophylaxis to many diseases. The nucleins have some good promises yet to be proven. I have had but one case of laryngeal diphtheria treated with antitoxin. It was successful in curing. Another new remedy for a local application for angina is antiphlogistine, a chocolate-colored, thick ointment, originated by my colleague, Dr. Brown, now of Colorado. I am impressed with its beneficial properties and believe more good results will follow its use.

To handle diphtheria properly, both physician and nurse must be energetic. Medications should not be postponed for sleep, day or night. There is a drowsiness that often accompanies diphtheria, that it is apt to be mistaken LINCOLN: Abscess of the Nasal Septum.

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for natural sleep, and the intervals between doses will be lengthened. If there is a disease known among children in this country that ought to be handled without gloves, it is Diphtheria.

ABSCESS OF THE NASAL SEPTUM, WITH A REPORT OF TWO CASES.*

BY WM. LINCOLN, M. D.,

Instructor in Laryngology Rhinology and Otology at Western Reserve Medical College.

In a consideration of abscess of the septum of the nose, we must recognize an acute form consequent upon, either the direct introduction of pus-forming micro-organisms into the septal tissues, or upon traumatism, and also a chronic form following necrosis of bone or cartilage due to an injury, or to specific diseases.

These cases present, in both the acute and chronic form, essentially the same history as to cause and effect as that accompanying like conditions in other parts of the body, and our principal interest in the matter therefore lies in the rarity of the affection and in correctly differentiating it from diseased conditions in the nose which may, more or less, closely resemble it.

For the notes of the following cases, illustrative of each form of this affection, I am indebted to my friend, Dr. Jos. Gibb of Philadelphia, in whose clinic at the Episcopal Hospital they were observed, and by whom they were reported to the College of Physicians of that city.

Case I. M. N., aet. 28, married, housewife. For five or six weeks, has had severe throbbing pain in nose, felt externally immediately below nasal bones. There was, in addition, considerable difficulty in breathing through the nose, and owing to this pain and obstruction to breathing, sleep was much interfered with. No history of trauma was given. Externally the nose appeared red and swollen, and was very painful to the touch. The alæ were bulging. Upon examination, the left nasal chamber was found to be

*Read before Section on Rhinology, Opthalmology, etc., of Cuyahoga County Medical Society, February 7, 1896.



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filled with a dark-red, smooth mass which entirely shut off the view of other parts of the chamber and extended nearly to the vestibule. A similar but smaller mass nearly filled the right chamber. After cocainizing, a probe could be passed around the mass on the outside, but was stopped by the septum above and below, proving the septum to be the site of the tumor. The mass was observed to yield to pressure of the probe, and, by a finger in each nostril, fluctuation was elicited. An incision in the most dependent portion of the tumor in the left nostril was followed by discharge of thick pus, and by the collapse of the tumors in both nostrils. A probe introduced into the incision passed through a perforation in the septum. No necrosed bone was felt, and no burrowing of the pus was discoverable. The cavity was washed with H2 O2 and packed with antiseptic gauze, and, in three or four weeks, all evidence of nasal trouble had disappeared.

Case II. J. P., aet. 23, driver, gave a history of frequent epistaxis, which condition had lasted for more than a year. He could remember no injury, and had had no pain in or about the nose. Family history had no bearing on the case, and there was no history of lues. He complained that his sleep had been much interfered with by an increasing difficulty in breathing through the nose. His general health was failing. On examination, the nose was found to be broadened, and on dilating the left nostril, a large purplish mass was seen, which was attached to the septum and pressed against the inferior turbinated, and a like tumor presented on the right side. Fluctuation was present, but the digital examination caused no pain. An incision made on the left side allowed the escape of a quantity of thin, curdy pus, and a subsidence of the swelling in both nostrils. By probing, a large perforation was found in the cartilaginous septum, and the probe, following a sinus along the cartilage, came to necrosed bone. The abscess cavity was cleansed with H2 O2 and packed. This procedure was repeated on two or three subsequent visits with a lessening in the amount of pus, and it was then proposed to curette the necrotic bone and cartilage. At this stage the patient disappeared.





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In the first case, we have the same history as would be furnished by an acute inflammation, cell infiltration and consequent pus formation elsewhere in the body. In this particular case, no history of injury anteceded the trouble, but on account of lack of attention paid to so frequent an accident as an injury to the nose, such an occurrence is possible and may easily have escaped the patient's memory.

The history of a great many of these cases is, injury to the nose, followed by hæmatoma, and this by abscess. It is probable, though, that a certain number are the result of infection from pus forming micro-organisms engrafted directly into the nasal tissues by the act of picking or scratching the nose with the finger. This as a causative factor, although I do not find it alluded to in the meager literature of the subject, seems, to my mind, very probable, and in the absence of a history of traumatism, I should be inclined to consider the abscess in this case as the result of such a cause. As having direct bearing on this matter, I would call attention to an article by M. Hajek of Vienna, in Virchow's Archives, (Bd. cxx, p. 497), where, in a study of the so-called Perforating Ulcer of Septum, he reports having found in the pseudomembrane overlaying the ulcer preceding the perforation, pyogenic micro-organisms which he surmised to be stapholococcus pyogenes aureus and the streptococcus pyogenes, and to which he attributes the necrosis of the mucous membrane and underlying parts. It is generally considered probable that the cause of Perforating Ulcer is, in a great number of cases, constant picking the nose with the finger. This is in all probability the mode of introduction of the micro-organism found by Hajek, and a like method of infection probably takes place in cases of acute abscess of the septum not due to injury and hæmatoma. The chronic form of abscess is well illustrated by the second case reported. As to the cause in that case, I should say, that while an injury causing caries of the vomer may have been at the bottom of the trouble, it seems to me more probable that, lacking a distinct history of such cause, it was the result of perichondritis and periostitis following invasion of the tissues by syphilitic or tubercular new formation. The absence of pain in the chronic abscess is almost the only subjective





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symptom in which it differs from the collection due to acute inflammation, except that in the latter, the pus collects in a much shorter time than in the former. In our examination of these cases, too, pain on palpation will be the principal symptom which will lead us before evacuating the abscess to differentiate the acute from the chronic form. The cardinal symptom of encysted pus collection, fluctuation, occurring in a tumor, occupying both sides of the septum, will render the diagnosis in most cases easy. When the abscess, however, occurs only on one side of the septum, the diagnosis is not so simple, but with care in observation an error will very seldom be made. Pain as a subjective symptom, and on pressure with the finger or probe, with the location of the seat of the tumor as determined by the probe passed around it, will serve to differentiate the acute form from polyp, while the latter procedure in conjunction with the clinical history will distinguish between polyp and the chronic abscess. Sarcoma and carcinoma of the septum are very rare affections, but may present symptoms somewhat similar to the disease under consideration. In sarcoma, the less malignant of these tumors, the consistence of the mass, as felt by the probe and finger, is the chief point in which it differs from the fluctuating pus collection. Carcinoma of the septum, if not ulcerated on its surface, as it is likely to be, might resemble, in the characteristic symptoms of pain, swelling and redness, an acute abscess. The consistence of the cancerous mass also might seem almost like the fluctuation of encysted pus, but I think a correct diagnosis can be made by looking carefully for glandular involvement, which is almost always an accompaniment of carcinoma, and also by considering the clinical history and the general health of our patient. The constitutional and local symptoms of empyema of the maxillary antrum will help us to exclude such a case as that reported by McBride, Disease of Throat, Nose and Ear, p. 263, where there was a considerable collection of pus under the septal mucosa, which had burrowed around from that sinus. This would be true also of pus burrowing from the other accessory nasal cavities. to the outcome in these two forms of septal abscess the difference lies in the irreparable destruction of tissue, caus-





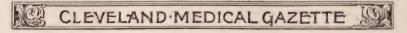
Fehling: Gonorrhaa, Occurring in Pregnancy.

ing permanent perforation of the septum, which occurs in the chronic form as a result of the destruction of the perichondrium and periosteum, while in the acute abscess, though these tissues are distended and painful, their return to their normal relations after the evacuation of the abscess contents, if this be not too long delayed, is followed by the rapid regeneration of the lost cartilage, and a total disappearance of any nasal trouble in a few weeks. little need be said about the treatment of these cases. both forms free incision, followed by antiseptic washes and packing, will yield the best results. In the chronic abscess, however, removal of necrosed bone or cartilage by means of the curette, will be needed in a majority of cases. M. Schmidt, of Frankfort a. M., writes of the possibility of aborting the acute formation by frequent application of Lugol's solution. This, in view of the rapid good results and harmlessness of early incision, would seem to be hardly worthy a trial. Schäffer, after incising the abscess, cuts out part of the wall, consisting of mucosa and perichondrium, and scrapes out with a sharp spoon in all cases; a procedure which I think is more than is needed for the cure of most of these simple cases. The perforation of the septum, which is a sequella of the greatest number of the cases of chronic abscess, leads to no troublesome symptoms except the liability to collection of crusts of inspissated mucus around its borders, and this systematic cleaning will always remedy. The comparative rarity of this affection is attested by all observers, and by the fact that the cases here reported were the only ones observed at this clinic in about 2000 cases of throat, nose and ear diseases, covering a period of over two years.

THE SIGNIFICANCE OF GONORRHŒA, OCCUR-RING IN PREGNANCY, LABOR AND THE PUERPERAL STATE.*

BY PROF. H. FEHLING, OF BASEL, SWITZERLAND.

Under this title Fehling has just lately published an interesting article, of which the following is a brief abstract. *Abstracted by Hunter Robb, M. D., Professor of Gynæcology of the Western Reserve University.



From ten to fifteen per cent. of all marriages are sterile. Glünder holds that in 70.3 per cent. of these cases the sterility is directly or indirectly due to gonorrhea, and it is probable that large as this number may seem, he has underestimated the effects of this one cause. It is certain that in 50 per cent, of sterile marriages the fault lies with the men. the majority of whom owe their incapacity to aspermism or azoospermism resulting from a gonorrhœal epididymitis. In dealing with gonorrhea in the man, therefore, this complication should always be remembered, and in connection with the marriage of men who have suffered from this disease, it is well to remember the statement of Wertheim, which is supported by other authorities, that a latent gonorrhoa in the man may infect the woman and she in turn may reinfect the man, who may thus be attacked by a fresh acute gonorrhœa.

A gonorrhœa accompanying pregnancy is not generally confined to the urethra, as has been held by many writers. It is just possible that we may not see patients until the urethritis has been healed, but it is far more probable that observers have been misled by certain symptoms, e.g., painful micturition, which are common to vulvitis and other affections. In non-pregnant women, on the contrary, the process is often confined at first to the urethra. The rare cases of urethritis occurring in pregnancy are generally of a benign form and often heal spontaneously. much more often met with and may be of a very severe grade, especially when the patient is unclean in her habits. Abscesses of Bartholini's glands which occur so often in the gonorrhœa of non-pregnant women is rare in patients who are pregnant. Condylomata acuminata are relatively seldom seen. They are generally small and are found upon the labia, on the folds of the groin or between the nates and seldom in the vagina or upon the cervix. In one case the author amputated a large area of skin covered with these growths under the impression that he was dealing with a carcinomatous process.

Vaginitis is frequent in the gonorrhæa of pregnancy. This statement is much disputed by other investigators.

¹ Munchener Medicinische Wochenschrift. No. 49. Dec. 1895.



Neisser holds that suppurative gonorrheal vaginitis is very rare in pregnancy. Fehling holds that the most frequent seat of gonorrhea in the pregnant woman is the vagina, where it causes a vaginitis granulosa or more frequently vaginitis punctata, the latter resembling very much the vaginitis climacterica in which there occurs exfoliation of the epithelium at the tops of the folds and rugæ of the mucous membrane. The mere presence of gonococci in the vaginal secretion proves nothing unless a definite vaginitis be present, since the cocci may have been derived from the cervix. The thin purulent discharge is generally so profuse that it irritates the external organs.

Erosion of the cervix when it occurs in these cases is generally the result of vaginal or cervical catarrh, which after a time bring about changes not only in the superficial epithelium, but also cause hyperplasia of the connective tissue of the cervix with consequent stiffening and induration which may obstruct delivery.

Cervical gonorrhœa is very often met with. Corporeal endometritis due to the gonococcus is very rare as the infection usually occurs after conception has taken place. According to Walthard, the gonococci are rendered harmless by the leucocytes in the lower and middle cervical zones, so that the upper cervical (supra-vaginal) zone generally remains free from germs unless they are carried up by instruments or by manipulations in careless hands. Wertheim has demonstrated the presence of gonococci in the secretion in uteri which had been extirpated along with the gonorrhæic This gonorrheal endometritis is mostly of the interstitial form, although glandular changes may take place secondarily. It is possible that such a gonorrheal endometritis may like syphilis be the cause of abortion in those women who later suffer from chronic inflammatory processes in the adnexa. Gonorrheal metritis may result from a gonorrheal endometritis, but in these cases it is probable that abortion takes place before the changes occur in the deeper uterine tissues.

Gonorrhœal perimetritis, with or without salpingitis, may be met with during pregnancy. Fehling thinks he has seen many such cases, especially in private practice,



after marriages entered upon while the husbands were still suffering from a not entirely cured gonorrhæa. The symptoms resemble those given by Wigand as diagnostic of rheumatism of the uterus, and many of the so-called rheumatic cases are probably of gonorrhæal origin. The symptoms are those of an ordinary perimetritis with painful uterine colic, and a strong disposition to abortion.

Gonorrhœal salpingitis is rare in pregnancy, but a few undoubted cases have been recorded. In this case it must be assumed that the gonococci enter the tube together with or shortly after the spermatozoa and first set up a localized endosalpingitis. As the uterus and tubes grow larger, the organism, should it remain virulent, may succeed in breaking through into the intact portion of the tube. Similarly a periophooritis and a perisalpingitis may be brought about. These are characterized by a tendency to rapid localization and the walling off by adhesions.

The Treatment in order to be effective must be instituted as soon as possible, and the vulvitis and other of the earlier symptoms should be attacked before the latter complications, such as endometritis, which we cannot combat, have taken place. The presence of intracellular diplococci, which are stained by Gram's method, justifies the diagnosis of gonorrhæa. In cases of latent gonorrhæa in the man, as soon as pregnancy has been demonstrated, all cohabitation should be interdicted.

Hygienic measures, of course, are indicated in all cases, but the institution of the proper local treatment is of the greatest importance. In urethritis the patient should be made to take large quantities of water in order to dilute the urine and wash away the discharge frequently. Salicylate of soda and salol are sometimes very effective. In obstinate cases the insertion into the urethra of small suppositories of iodoform is often followed by gratifying results.

The medicated douches so highly recommended in vulvitis and vaginitis are often of little use, and such treatment indeed, as Kronig and Menge think, may lower the bactericidal powers of the vaginal secretion. It is certain that the fluid does not get to the bottom of all the rugæ, and douches in any form may provoke abortion. Should douches, how-



ever, appear necessary at all, it is best to use warm physiological salt solution or a solution of permanganate of potassium. Iodoform powder may be dusted over the mucous membrane, or a solution of nitrate of silver (5-10 per cent.) may be applied with a brush. These drugs, however, should be employed not more than twice or three times a week and then only by the physician himself. The pain and discomfort of the vulvitis may be much alleviated by pledgets of absorbent cotton placed between the labia and changed frequently. If these do not afford relief and the irritation be very severe, compresses wetted in lead water may be employed. The eroded cervix may be painted with a solution of nitrate of silver, care being taken not to push the gonococci up into the upper zones of the cervix.

Condylomata Acuminata should be left alone during pregnancy, and not be removed until later on during the puerperium. After an abortion in a case in which gonorrhæal endometritis is present, it is better not to curette, but to resort to applications of cauterizing remedies and to packing.

Gonorrheal perimetritis and salpingitis are to be treated on general principles. Rest, and *Priessnitz'* poultices may give relief alone, or the addition of suppositories containing morphine or opium may be necessary. Scarifying or leeching of the *portio* often affords great relief in cases accompanied by severe pain.

The conduction of childbirth in the case of a woman suffering from gonorrhea is about the same as that of a normal labor. In these cases, however, it has been much disputed whether one shall attempt at the beginning through the use of germicides to destroy the gonococci. In those cases which have been treated during the pregnancy, heroic measures are certainly contra-indicated, and we should content ourselves with endeavoring to remove, as far as possible, the secretion collected by the employment of douches of normal salt solution. In acute gonorrhea, however, an antiseptic douche of sublimate or lysol seems to give satisfactory results. Although these cases are not, as was formerly held, more liable to mixed infection, it is well to make as few internal examinations as possible for fear of carrying the gonococci further up the genital tract.

The changes in the fibro-muscular part of the cervix which follow erosion, render the first period sometimes very long. In this condition, luke-warm douches and baths may help. Occasionally small lateral intra-vaginal incisions in the cervix may be necessary. Marked stiffness and want of a yielding in the tissues of the vagina or vulva may demand incisions or the use of the forceps to assist delivery. Retention of the placenta may perhaps be due sometimes to gonorrhæa and is to be treated on usual principles.

The Child. Immediately after birth, the child's eyes should be washed, and two or three drops of a two per cent. solution of nitrate of silver should be dropped into each eye. This precautionary measure is so important that the midwife should be instructed to carry it out in case the physician is not present at the birth. Stomatitis Gonorrhoica in the child is very rare; when it occurs it should be treated with nitrate of silver. Especial care of the mother's nipples is necessary should the child be afflicted in this way.

The frequency with which the gonococcus appears as the causal agent in febrile disturbances accompanying the puerperium is still unsettled, but it is probable that it has generally been somewhat overrated. While, however, Kronig and others believe that in many septic processes, accompanied by symptoms ascribed to the absorption of pathogenic material, these symptoms are caused by the gonococcus. Fritsch stoutly denies any connection between puerperal disease and gonorrhea. Only those cases should be diagnosed as due to the presence of the gonococcus in which this is the only pathogenic organism found. It is probable that not more than one-fourth of the cases of endometritis occurring during the puerperium are due to the gonococcus, and it must be remembered that the mere presence of gonococci in the uterine cavity does not mean that the patient must have fever.

The usual treatment of gonorrheal resorption fever and endometritis consists in vaginal and possibly uterine douches. After four weeks, cauterization of the cervico-uterine cavity may be necessary as in chronic endometritis.

Salpingitis and perisalpingitis are rarer than endometritis. The author has seen four cases of undoubted gonorrheal



origin in the course of several years. Zweifel has seen about the same number. It is possible that in these cases the cocci were in the tube at the time of labor, probably more or less localized and encapsulated, and that during labor, owing to rupture of the enclosing wall of adhesions, some of those cocci succeeded in entering the other portion of the tube or were even poured out over the peritoneum.

Gonorrheal salpingitis or perisalpingitis in the puer-perium, as it has been observed in women in whom gonorrhea has been demonstrated, appears as a sudden outbreak of a circumscribed pelveo-peritonitis and begins from the third to the tenth day after labor. The temperature is as a rule not very high, though the pulse is rapid. There is tenderness of the abdomen, which is most marked in the region of the tubes. The process is generally confined to one side. Though it is characterized especially by its tendency to be localized, the focus being rapidly walled off from the general peritoneal cavity, it is liable to recur on the slightest provocation. Careless and rough examinations are responsible for a great many exacerbations. The treatment is that of an ordinary perimetritis.

Ovarian Abscesses may be produced by gonococci which have wandered into the ovary through the tube or which have passed directly through the parametrial tissues from the cervix. Such abscesses are rare and are liable to become rapidly infected with the bacterium coli or the streptococcus. In operating on them, therefore, this fact should be borne in mind. The presence in the peritoneal cavity of gonococci alone, no other pathogenic organisms being present, is not of very grave importance, as the peritonitis called forth by them does not tend to become generalized. In removing tubes, which are filled with gonococcic pus, it is unnecessary to employ drainage even should some of it get into the peritoneal cavity. Wertheim has never in such cases been able to find streptococci or staphylococci, along with the gonococci. In some cases he found gonococci alone, in other cases he found other organisms, but never in conjunction with the gonococci.

The occurrence of gonorrheal mastitis is doubtful; the presence of gonococci in breast abscesses has never yet been satisfactorily demonstrated.

ROENTGEN X RAYS AND THEIR APPLICATION IN MEDICINE AND SURGERY.*

BY DAYTON C. MILLER, D. SC.,

Professor of Physics in Case School of Applied Science, Cleveland, O.

Probably never before has a scientific discovery been made which has attracted such universal attention as that of a "New kind of Rays" announced by Prof. W. C. Roentgen of Würzburg, in January last. The enthusiasm aroused by the first newspaper reports increases as the weeks go by, and results of real value are being obtained every day.

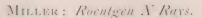
The Roentgen rays seem to be developed only by an electrical discharge in a high vacuum; and a brief review of experiments in this direction will be useful. Geissler, a physicist of Bonn, about fifty years ago, constructed vacuum tubes, which bear his name, for experiments of this kind. A degree of exhaustion of about two-hundredths of an atmosphere was used. A "tube" in the sense here used is any closed glass vessel having two wires sealed into its sides, which are to be used as the electrodes of an electric circuit, and between which the discharge is to take place in the interior of the tube, which has been exhausted before sealing. The electrode by which the current enters the tube is called the anode, and the one by which it leaves is the cathode. The high tension current required is usually produced by an induction coil, a well known piece of apparatus which needs not now be described. Brilliant and beautiful color effects are produced when the current passes through tubes of various kinds of glass and containing various gases. Geissler tubes are used only for these display purposes. Plücker later on made tubes for exhibiting the spectra of the gases through which the discharge takes place, the current rendering the gas luminous.

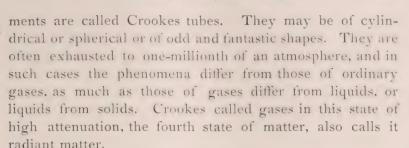
About twenty years ago Wm. Crookes, of England, constructed tubes of great variety, some very highly exhausted. The phenomena exhibited by these tubes were so surprising and wonderful that they constituted a new class of phenomena. Tubes made for repeating these experi-

^{*} A lecture delivered before the Cleveland Medical Society, April 3, 1896.

The lecture was illustrated with the complete X Ray apparatus in operation, and with fifty lantern slides from original negatives. The portrait in Fig. 1 is that of Prof. Miller.—[Ed.]







In a Geissler tube, the gas in the interior glows with a colored light, and exhibits beautiful stratifications. As the tube is exhausted more and more the glow decreases in brilliancy, and entirely ceases when the exhaustion is such that only one-millionth of the original air remains. But at this stage the glass itself begins to emit light, fluoresce, and it is then that the tube becomes useful for the purpose of generating the Roentgen Rays. Crookes obtained vacuums as high as one-twenty-millionth of an atmosphere, in which case the current cannot be made to pass at all.

One striking peculiarity of the discharge in the high vacuum is that the cathode is the important electrode. The theory of gases as at present accepted, supposes a gas to be made up of molecules which are in ceaseless motion, the velocity of which depends upon the temperature. The cathode in a tube is usually a small aluminium plate, and when the current passes this is negatively charged. The molecules of the gas striking it become electrified, and are thrown off at right angles to the plate. In the state of exhaustion which exists in the tube, it is supposed that on the whole many of the electrified molecules are actually projected clear across the tube and impinge upon the glass opposite the cathode. This stream of electrified particles constitutes the cathode rays which are so often mentioned. They possess many peculiar properties which have been carefully studied by Crookes and others. Among these properties are that these particles move in straight lines from the cathode, they exert mechanical force, and produce heat where they strike, and they are deflected by a magnet. More than this, these cathode rays produce beautiful phosphorescent and fluorescent effects. Diamonds and rubies glow brightly when subjected to this discharge, and the



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glass of the tubes, which are of special interest to us, fluoresce with a greenish-yellow color. The cathode rays of themselves are not luminous, but seem to be intimately connected with light.

Physicists are compelled to believe that there is an allpervading elastic medium which fills all space, and penetrates all bodies, however solid they may be, and that light is a wave motion of this ether. The direction of the motion is believed to be at right angles, or transverse, to the line in which the line is propagated. To explain the nature of these waves in the ether would of itself require several lectures.

From philosophical and mathematical reasons, Maxwell was led to the conclusion that these light waves are identical with electro-magnetic disturbances in the ether. It has long been known that radiant heat consists of waves in the ether of the same nature as light waves, but of larger size, while waves shorter than those of light, give rise to photographic effects. Hertz, a brilliant German scientist, who died a few years ago, undertook to demonstrate Maxwell's theory experimentally, and showed that electro-magnetic disturbances in the ether possess all of the properties of light, namely, refraction, reflection, dispersion, polarization, etc. Among other things, he announced in 1891 that the cathode rays of a Crookes tube pass through opaque substances placed in their path inside of the tube. Death interrupted his experiments, which were continued by Lenard. 1893 Lenard published the fact that the cathode rays pass out of the tube to a certain extent, and he obtained a photograph through opaque substances by their means. But like many other announcements in the scientific journals which may be of real importance, this one did not attract special attention.

Roentgen, after continued experimenting along this line, was finally able to announce something new; he has discovered something entirely different from the cathode rays, whose properties were entirely novel. His original paper was published by the Würzburg Physico-Medical Society, and consists of seventeen modest paragraphs describing his researches. The experiments were repeated



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in Vienna, and telegraphed to the world. How the discovery has been received is well known to you all. Roentgen found that there originates on the glass of the tube, which is rendered fluorescent by the cathode rays, a new effect which passes readily through opaque substances, and produces phosphorescent and photographic effects. A Crookes tube while being excited was covered with an opaque shield, and Roentgen noticed that a piece of paper which was impregnated with Barium Platino-Cyanide was made phosphorescent notwithstanding the shield, even at a distance of two metres. He found that the interposition of books, cards, and many other substances did not screen the paper from the effect which emanated from the tube. When he placed his hand between the shielded tube and the paper, he was astonished to find that the effect penetrated the whole hand, and that the flesh offered less hindrance than the bones, thus differentiating the two, as it were, casting a shadow of the bones upon the paper. Roentgen then substituted a photographic plate for the fluorescent paper, and succeeded in photographing the bones of his hand. His further experiments showed that the opacity increases with the thickness of the objects and also usually with their density. They are absolutely invisible to the eye, and do not produce any heat effects; they are incapable of reflection or refraction, but apparently proceed outward in straight lines perpendicular to the surface of the tube. The rays cannot be polarized, and they are not deflected by a magnet. This much Roentgen announced, with the suggestion that the effect might be due to longitudinal vibrations of the ether.

This discovery has two distinct aspects. From the scientific standpoint, its main interest lies in the fact that a "new kind of rays" has been found. These Roentgen rays are not cathode rays, and the use of the term cathode ray in speaking of these effects is wrong. Cathode rays have been known and studied for twenty years or more. What the new effect is, Roentgen did not know, and therefore he gave to this unknown quantity the name "X Ray." After three months of careful study, the scientific world is still unable to explain the nature of the phenomenon, and it is this theoretical enigma that constitutes the first phase of



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the discovery. The second aspect is that from the popular and practical side, and it is this which interests the people generally. The fact that Roentgen had photographed the bones of his hand, gave the discovery its sensational aspect.

Several theories have been proposed to account for the X Rays. One is, that they consist of electrified material particles shot off from the cathode, or from the tube with enormous velocity. Another theory supposes them to be ultra-violet waves of light, and another would make them longitudinal ether vibrations, thus connecting them with light, but distinguishing them from light. A fourth theory accounts for the effect as the result of electrification, that is, an electrostatic effect taking place between the object and the photographic plate, due to the presence of the excited Crookes tube. The experiments coming under the notice of the writer seem to favor the last explanation, but the whole question must be considered as in a very unsettled state, and it may require years of very careful study to settle definitely the nature of so subtle a force. It is not improbable that the solution of the puzzle will greatly extend our understanding of the mysteries of nature.

Notwithstanding the many reports which have been published concerning the finding of X Rays in the electric light, in sunlight, lamp light, and even in dark places, it is finally believed that no true Roentgen photograph has been made without a Crookes tube. Imprints have been, no doubt, obtained, but in these cases, wrong conclusions have been drawn, and the effects are to be explained as due to other causes.

In describing the apparatus, it will be convenient to state just what has been found to give the best results in the experiments which have been carried on at Case School of Applied Science.

A prepared plate is placed in an ordinary plate holder, which is a light proof case, having a cover of dense paste board or thin hard rubber. The plate-holder is supported in an inclined position, or placed flat on a table, as may be most convenient in order to get the object, whose picture is desired, as close to the plate as possible. This condition is essential to distinctness of outline. If it is an arm which





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is being adjusted, a few bandages tied around it and the plateholder will make it certain that there is no movement during the exposure. It is necessary to make sure that the subject sits in a comfortable position, else long exposures cause considerable fatigue.

The Crookes tube is adjusted so that the cathode is directly opposite the most important part of the object, in order that the rays from the tube shall strike the plate perpendicularly. A distance of twelve inches between the plate and the tube is most employed, though it may be more or less according to circumstances. Less distance gives more intensity, permitting shorter exposures, but also renders the outlines less distinct, and lessens the area covered by the rays. With a distance of twelve inches an eleven by fourteen inch plate is perfectly covered.

The Crookes tube which has been used throughout the entire series of experiments, is a sphere about five inches in diameter having for the cathode, a concave aluminium disc about an inch in diameter, and having three anodes consisting of wires sealed in the tube at points around the circumference (see Fig. 1.) The cathode rays strike the glass between two of the anodes, and these two only are actually used. This tube is one of a set designed to show

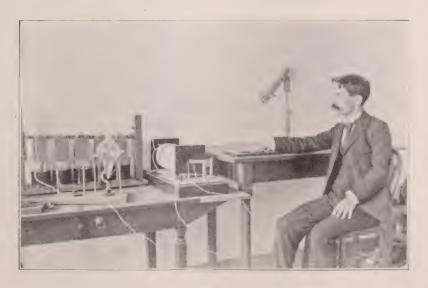


Fig. 1.

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that in a high vacuum the discharge is independent of the anode, depending only upon the cathode. It was exhibited at the World's Columbian Exposition, and is of unusual size and perfection of vacuum. It is supported by an apparatus holder so that the cathode may be pointed in any direction. A metal diaphragm is placed in contact with the fluorescent side, to limit the effective portion of the tube to a circle of about two and one-half inches in diameter. The tube is strongly electrified when in use, and it is thought to be an advantage to keep it continually discharged by passing the anode wire along the surface of the glass. This in fact makes the glass opposite the cathode the actual anode, and it is from this point that the X Rays emanate. A dry atmosphere conduces to good results.

The induction coil, the terminals of whose secondary circuit are connected to the electrodes of the Crookes tube, is of the usual construction, about twelve inches long and six inches in diameter, and gives about a six inch spark in air. This intensity may be estimated at half a million volts. The resistance of the primary is 0.15 ohms, and of the secondary, 70,000 ohms.

The current for the primary of the induction coil is derived from twelve or more cells of storage battery, and when the coil is working, the indications between the primary binding posts are about five amperes and fifteen volts.

The photographic part of the operation is carried out after the usual manner. Many variations have been tried, ending in the adoption of normal methods, except as to long continued development. This usually lasts about one-half hour. There seems to be but little choice between various developing agents, metal having been finally adopted because it does not stain the negatives. A great amount of detail appears strongly during the development which is lost in the "fixing" process. In important surgical cases the surgeon should see the plate during the development in order to obtain the full benefit of the experiment. Various developers and fixing agents have been tried to overcome this difficulty, but without success.

It has been suggested that a return be made to Roentgen's original discovery, that the fluorescent screen be substituted





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for the photographic plate, so as to render the bones and internal organs directly visible. Experiments have been tried in this line, but notwithstanding the sensational reports, it is believed that the photographic is much the better, it being cumulative, and thus giving an impression with an hour's exposure which could not be visible instantaneously. It should be well understood that though many experimenters seem to claim the fluorescent screen as their invention, that it was used by Roentgen before he used the photographic plate, and the credit belongs to him.

Concerning many experiments little need be said here, as it is very easy to obtain pictures of coins in a purse, weights and instruments in boxes, various objects through planks, and the skeletons of small animals, with a very few minutes exposure. Many experiments have been made to determine the relative opacity of various substances. Glass is found to hinder the passage of the rays more than some metals, which may be due to the lead contained in the glass, lead being very opaque. The denser metals are all difficult of penetration, while aluminum offers but little resistance. The design and lettering on an aluminum medal has been photographed in five minutes, showing the detail nearly as well, as an ordinary photograph.

After much experimenting for about a month, with exposures varying from one to three hours, an almost perfect picture of the hand and wrist was obtained on the twentyeighth of February, with an exposure of only twenty minutes. This improvement resulted from the use of a more powerful current and a better understanding of the apparatus. lowing this, many interesting surgical cases have been examined, some of which will be briefly noted. Bullets have been located in the hands of four men. the shot from a Flobert rifle which has been carried for sixteen years. After searching the fore-arm where the ball was supposed to lie, it was found at the base of the little finger where it joins the wrist. The second was the ball from a thirty-two caliber revolver, which was received seven months before. It was found very much flattened, lying in the back of the hand where the thumb joins the wrist. In another instance, two shot were found near the second joint



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of the first finger (see Fig. 2,) having been there for years. One of the shot entered the bone, splitting it, so that the projecting pieces gives the appearance of an enlarged joint. The fourth case is that of a twenty-two caliber ball which was received in the palm of the hand, five weeks before



Fig. 2.

the picture was made. It was very clearly located near where the first finger joins the wrist (see Fig. 3.) The time of exposure used in locating these bullets varied from eight to twenty minutes. A man had carried a piece of steel, from a hammer, in his arm near the elbow for nineteen years. It was easily located.

Many cases of injuries to the fingers caused by machinery have been studied. Figure 4 shows the injury done by a planing machine, taken through the bandages, while Figure 5 shows the result produced by cog wheels. Fractures produced by base ball playing, and malformations of the bones have been photographed. Attempts to diagnose supposed cases of tuberculosis of the joints have been partially successful.

The entire arm is photographed readily. Figure 6





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Fig. 3.



Fig. 4.



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shows the normal hand and fore-arm, taken with twenty minutes exposure. Every bone is shown with perfect distinctness in the original negative, and a surprising amount of detail, for a mere shadow is seen at the joints. The marrow shows more transparency than the bone proper. The club shaped end with the various projections are distinct. In many cases, the spongy conditions of the bones is very clear. The original also shows ligaments joining the bones at the wrist. Aside from such cases, no cords, muscles or nerves have been distinguished. Fractures of



Fig. 5.

the arm, both old and new, showing the line of fracture and the callous, can be readily examined. Among several very interesting and valuable photographs of fractures is one shown in Figure 7, where the nature of the break renders it impossible to place the bones in apposition. This picture was taken twelve weeks after the accident. In another similar case but five weeks had elapsed, union not having taken place. The picture was made through the splints and padding. The time of exposure was forty-five minutes. Under these circumstances, the photograph can be taken





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Fig. 6.





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without inconvenience to the subject. The presence of two splints with bandages and of sodium silicate casts, have proven of no hindrance in other cases, such details as the pins showing on the plate. It would seem that such pictures as these, taken before attempting to set a fracture, or immediately after, must be of great value to the surgeon. Several cases of necrosis of the bones of the arm have proven very interesting, one of which is shown in Figure 8. This arm has been operated upon seven times by eminent surgeons in various cities of the country. A piece of bone four inches long has been removed. The photograph indicates the extent of the disease, and the shape and position of the remaining fragments.

The toes of the foot to the instep can be studied successfully; cases of deformities and those showing the effects of pointed shoes have been tried. The complicated ankle joint and the knee joint seem beyond the power of the Roentgen rays at present.

As an experiment to determine what can be accomplished, several pictures of the chest and head have been made, with exposures of one hour in each case. An unexpected amount of detail is visible. The chest picture shows the shoulder joint, the collar bone, the spinal column, with its articulations, and a dark streak along its length, corresponding to the spinal cord, and eight ribs on each side of the spine. In the region of the heart, the detail is less conspicuous, indicating that the heart is more opaque than the lung tissue. In the photograph of the head, there is visible the spinal column in the neck, the jaw bones with the teeth and spaces where the teeth have been removed. the nasal cavities, eve sockets, the ragged junction of the bone and cartilage in the nose, the floor of the brain cavity, the thin place in the skull corresponding to the temples and the thickening at the ears.

As to the future, one does not like to prophesy. But the newness of the phenomenon, the crudeness of the apparatus, and the marvelous results already actually accomplished furnish a basis upon which one may build hopes of still more wonderful and useful applications. It is seldom that a new scientific discovery is so quickly utilized in practical work,



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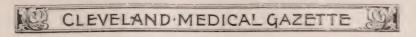


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Fig. 8.



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and it speaks well for the progressiveness of the medical profession that they have at once and of one accord accepted Roentgen's discovery as an aid in their profession. It is hardly proper to say that it will revolutionize present methods, but certainly we shall all look forward with great eagerness and high expectations for the solution of the many theoretical and practical difficulties involved.

CLEVELAND MEDICAL SOCIETY.

MEETING OF FEBRUARY 28, 1896.

The meeting was called to order by the president, Dr. COOK. Dr. J. V. Kofron, of 1560 Broadway, was elected to resident membership: DR. A. M. BEACH, and DR. A. J. LEITCH, of Niles, and DR. J. C. JAMESON, of Oberlin, were elected as non-resident members. The names of three residents and seventeen non-residents were proposed for membership.

The question of holding the meetings of the Society every Friday, instead of twice a month on Thursday, as at present, was considered, and will be voted upon in a month.

The following amendments to the constitution were

adopted:

1st. In Art. IV, Section 3, strike out the word "Librarian." and insert "Chairman of Standing Committees and Sections."

2d. In Art. IV. Section 1, strike out the word "Librarian."

3d. In the By-Laws, strike out Section 6 of Art. III. 4th. In Art. III, Section 7, strike out the clause begin-

ning with "Provided," to the end of the paragraph. 5th. In Art. III, Section 8, and fourth paragraph,

strike out the word "library."

6th. In Art. IV, strike out the paragraph on "library."

Resolutions were passed, recognizing the importance of possessing a fully equipped Bacteriological Laboratory in connection with the health department of the city, and favoring such provision in any bill increasing the tax list or bondage of the city.

Dr. Foshay was unanimously elected to represent the society on the new medical Board of Examination and Registration, and his name with recommendation, will be

presented to the proper authorities at Columbus.



· Cleveland Medical Society.

Dr. Hamann presented a specimen of fractured cervical vertebra, from a young man who had sustained the injury while diving, and Dr. Tuckerman showed the appendix from a man of 73, removed from an hernial sac in an attack of appendicitis.

DR. WIRT presented two cases of lateral curvature of

the spine.

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A very interesting case of fracture of the cervical vertebra, with recovery, was shown by Dr. Kaestlen. The boy was run over by a team, and in addition to fracturing the third cervical vertebra, sustained fractures of the right femur, left humerus and ulna, lower maxilla and skull.

Dr. Sherman read an admirable paper on "Our Public Schools," and laid much stress upon the enormous increase of myopia during the school age, due in great measure to the poor seating arrangements, and light, making cramped and unnatural positions of the pupils almost a necessity.

Owing to the lateness of the hour, the discussion of the

paper was postponed until the next meeting.

G. S. S.

THROAT, EYE AND EAR SECTION OF THE CUYAHOGA COUNTY MEDICAL SOCIETY.

The regular monthly meeting of the Throat, Ear and Eye Section was held at Wooster Medical College, Friday

evening, March 6, 1896.

Promptly at eight o'clock, Dr. G. W. Crile began a most interesting and instructive demonstration on a dog. The dog was etherized through a tube connected with the trachea below the larynx, and the larynx and vocal cords were plainly exposed. The right hemisphere of the brain was exposed and the centers for respiration and control of the vocal cords, were demonstrated. It was also shown that a slight irritation of the vocal cords themselves, caused marked slowing and even complete cessation of respiration; but after the application of 4% solution of cocain, the larynx and cords could be irritated and even mangled, without producing any effect on respiration.

J. M. Ingersoll, M. D., Secretary.



Editors Medical Gazette:—With the idea that the physicians of Cleveland do not fully appreciate the advantages offered by the Cleveland Medical Library Association, and in order to draw their attention to it, I write this short note for your journal.

The Association is young and our library is as yet, of course, merely a nucleus, but as such it is worthy of the support of every physician who is interested in the advancement of Cleveland as a medical center.

Some of the new books recently added are:

"American Text-Book of Obstetrics."

"American Text-Book of Diseases of Children."

"American Text-Book of Nervous Diseases."

Senn's "Principles of Surgery."

"Anto-intoxication," by Bouchard.

Hayem & Hare's "Physical and Natural Therapeutics."

A very valuable addition has been made, consisting of a complete set, about eighty (80) volumes of the British Medico-Chirurgical Transactions. The Cleveland Medical Gazette has very kindly and generously offered their exchanges of the past ten years or longer, and the Cleveland Journal of Medicine with similar liberal spirit and hearty support is giving us all their exchanges.

Almost all the best American journals, both weekly and monthly, are being received, and also two dozen of the best foreign journals, including English, German and French.

The cost of membership is five dollars (\$5.00) for admission, and five dollars (\$5.00) a year dues.

Any person wishing to join the Association or desiring any information concerning it, should write to or consult with Dr. H. E. Handerson, Dr. H. G. Sherman, Dr. C. A. Hamann, or myself.

WM. E. Bruner, Secretary, 514 New England Building.



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ALL LETTERS and communications for the business department should be addressed to the Publisher, 66 Euclid Avenue. All editorial communications, books, pamphlets and exchanges should be addressed to the Editor.

THE GAZETTE is sent to every subscriber until ordered stopped. When directed to discontinue, at the time of subscribing, the journal will cease coming when time expires.

CHANGES FOR ADVERTISEMENTS, or addresses, must reach us not later than the fifteenth day of the month, preceding issue to be corrected in the current number.



DR. BAKER RETIRES FROM THE GAZETTE.

Owing to the increased pressure of professional duties, I am reluctantly compelled to give up the editorial management of the GAZETTE, which I have conjointly with Dr. Kelley conducted for the past ten years.

It is with many regrets that I sever these most pleasant relations with readers and contributors. During all these years I can look back only with pleasure upon the kindly relations I have sustained with the medical profession. It



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would indeed be an ungrateful parent who would not wish continued success to his child, and I certainly would not sever my connection with the GAZETTE if I thought its best interests imperiled by so doing. But ten years of association with Dr. Kelley have given me such confidence in his judgment, integrity, financial sagacity and literary ability, that I am sure the future of the GAZETTE will be better secured than it would be if I continued to sacrifice the interests of the GAZETTE to that of my professional duties, as I have often been compelled to do during the past few years.

With the next number, Dr. Kelley assumes entire ownership and editorial management of the GAZETTE.

ALBERT R. BAKER.

FROM WOOSTER TO WESLEYAN.

As most of our readers are aware, from perusal of the daily papers, the college hitherto known as the Medical Department of the University of Wooster, has become the Medical Department of the Ohio Weslevan University, and is to be known as the Cleveland College of Physicians and Surgeons. The Faculty, one and all, in a body, have resigned from Wooster and been elected to the same chairs in the new college. They are still doing business at the old stand on Brownell street, and at Cleveland General Hospital on Woodland avenue. But the Trustees of Weslevan are pledged to furnish a new college building, which is to be erected on a lot seventy-five by one hundred and twenty-five teet in size, on the corner of Central avenue and Brownell street, immediately opposite to the old college building. The new building is to be completed by the fall of '97. In the meantime, besides present quarters, temporary use will be made of the old church which stands on the building lot, for some of the laboratory work. The Cleveland General Hospital is unaffected by the change, remaining the property of the College and Hospital Building Association. The Medical Faculty of "P. and S." is to govern its own affairs and handle its own money; also elect



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its own members, subject to the approval of the trustees of the university. Its executive head is styled President, and at a meeting of the faculty, held March 28, Dr. C. B. Parker was elected to that office. Dr. H. E. Handerson as Registrar and Dr. C. F. Dutton as Treasurer were re-elected. Dr. H. W. Rogers, although urged to accept a re-election, declined to do so, but consented to serve temporarily. Drs. M. Rosenwasser and G. W. Crile were elected to serve on the Executive Committee, the other members of which are the President, Secretary and Registrar. There will also be a Dean, one of the faculty, who will represent the Medical Department in the Board of Deans of the University. The friends of the college are enthusiastic over the prospects of the institution, and now that she is to have suitable quarters for carrying on the work, hitherto hampered in the old building, are expecting unparalleled success. Wooster is dead. Long live the College of Physicians and Surgeons.

ALUMNI MEETING AND COMMENCEMENT EXERCISES OF THE MEDICAL DEPART-MENT OF THE UNIVERSITY OF WOOSTER.

The Annual Meeting of the Alumni Association was held as usual on the afternoon of commencement day, which this year fell upon March 18th. The members assembled in the amphitheatre of Cleveland General Hospital, and in lieu of the customary address, witnessed a clinic by Dr. Parker, illustrating the latest approved technique of antiseptic surgery. The cases were of a neoplasm of the testicle, and appendicitis. Anesthesia was by chloroform administered, mixed with oxygen gas, the advantages of which plan were pointed out. After the clinic the usual business of the meeting proceeded. Dr. Putnam of Gann, O., presided. On motion, the graduating class was elected to membership. After the reading of the minutes by the secretary, Dr. Crile, the report of the treasurer was called for. The treasurer, Dr. Kelley, reported a bank account of

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\$24.27, which had neither increased nor decreased during the year. He proposed to either spend the money and abolish the office, or else collect more money with some definite purpose in view; and suggested that the Association take a hand in the prospective new college building. He thought it would be a good plan to finish and furnish a room to be called students' room or alumni room, in which class portraits and other memorials could be collected, and meetings of the alumni could be held. This or some similar project would be a good and pleasant thing to do, and would interest the alumni in these annual gatherings and foster the college spirit. The committee on nomination of officers now reporting, the meeting proceeded to election, which resulted as follows: For President, Dr. Robert Putnam of Gann, O.; First Vice President, Dr. Theodore F. Wood of Angola, Ind.; Second Vice President, Dr. L. S. Chadwick; Third Vice President, Dr. N. Weidenthal; Fourth Vice President, Dr. Miriam Keruish; Fifth Vice President, Dr. C. J. Aldrich; Secretary, Dr. W. E. Lower; Treasurer, Dr. J. A. Heath. Remarks were called for and Dr. Baker responded. He was followed by Dr. Wood of Angola, Ind., class of '68, who spoke as follows:

Mr. President and Members of the Alumni: It seems strange, and surprises me that I should be called upon to make remarks upon this occasion without having at least an intimation that such might be the case before your exercises began. It would give me great pleasure to respond to your kind invitation in an appropriate manner, but more than a quarter of a century has elapsed since I visited my Alma Mater upon an occasion of an alumni meeting. An active and busy life have so taken my time and attention that I have not only failed to visit my Alma Mater, but have forgotten the names and whereabouts of many of my old classmates, who shared with me the pleasures and faced the difficulties of student life when here.

To-day I am here alone, so far as the class of '68 and '69 is concerned. Only from memory do I know that they were here, and that we mingled together in the capacity of medical students. Nay more, I do not see the face or hear the voice of one teacher who constituted the faculty at that time, and whose memory I have ever cherished, whose teaching, both by example and precept, have been to me a rich reward. I recall the names of Scott, Firestone, Weber,



Jones, Henrick, and so on, to show my appreciation of the lessons they taught me when I was a mere tyro in the profession, while many of the minor details are gone, even the old land marks of the city, which were once familiar to me, are forgotten; yet, the main principles taught me in this institution have been remembered, and have served as a great lever, to bring to me success in my chosen calling.

I have occasionally met some of the members of the old faculty of years ago. I had hoped to-day to meet some of them, but the relentless hand of time has made changes so that I have only been able to see my old friend, Dr. Scott, and he, prostrate with disease, making his appearance one of sadness as compared with that of his former vigor.

When I was a student, I did not realize what was before me in a professional life; I did not know the selfdenial and hard work that I was presuming to undertake, the inconveniences that must be met, the hard professional knots to be untied, if we sought to have an honorable standing among medical men. But, as time went on, necessity taught me many lessons that I ought to have had in the beginning of my professional life. I think it would be advantageous to a teacher in a medical college that he should have experience as a country practitioner, who has been thrown upon his own resources, without the supposed advantage of all kinds of surgical appliances, set pre-

scriptions, printed doses, etc.

To the young men who are about to leave this institution, you are only just beginning your medical studies in earnest, only at the threshold of the great storehouse of medical science which is open to you. Everything pertaining to this vast field of study and research which has cost the life work of so many pioneers in medicine and surgery, is bequeathed to you as a free and gracious gift. Will you accept it? Will you cherish it, and show your appreciation by good and faithful work during the remainder of your lives? When you are located, do not expect too much; do not expect patients to come to you by the score the first week, month, nor possibly the first year; do not think your services are in such demand that people cannot live without you, or that you can positively control, correctly diagnose, and successfully treat every case you are called to see. you do, you will often find yourself deceived, your anticipations not realized, and many times you will be knocked out of the box by some kind old grandmother, whose experience has taught her what to do next, when asafætida did not cure the baby's fits, or pink and senna cause the expulsion of its worms.

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In conclusion, gentlemen, begin your work in earnest, with a will and determination, and a zeal that knows no failure. Study your cases closely, be honest, sincere, temper your zeal with prudence, apply yourselves closely to textbooks and medical literature generally. Be prepared and ready to cheerfully care for all cases which come under your observation, be thorough, courteous, cheerful, waste no time playing pedro or attending horse races.

Thank you, ladies and gentlemen.

Dr. C. A. Snow, '91, spoke earnestly in favor of Dr. Kelley's suggestion in regard to an alumni room, or other similar project, and moved that a committee be appointed to take the matter in hand; the motion prevailed, and the president appointed Drs. Crile, Cotton and Snow.

THE COMMENCEMENT EXERCISES.

These were held in Unity Church, which was completely filled by the audience. The platform was beautifully decorated with flowers, and an orchestra was located in the organ loft. The graduating class numbered twenty-nine, three of whom were ladies. The following is a list of the names of the graduates:

SAMUEL PARRISH BOARDMAN, HAMILTON F. BIGGAR, JR., ARTHUR EDWARD CHATFIELD, CHARLES C. DREYER, DAVID HAROLD EAGLESON, GEORGE HOWARD FULLER, JOSEPH C. FRITCH, ALBERT B. FRAZE, PETER FEHR, WILLIAM B. GRAFF, KENT KANE HASTINGS, WILLIAM H. HYDE, CLIFFE UPDEGRAFF JOHNSON, DAVÍD ROBERT KLINE, FRANK THEODORE KOPFSTEIN, FRANCES THEODOSIA MACDONALD, David Hervey Morgan,
Thomas Joseph Mizer,
Andrew Joseph McNamara,
John Church Nash,
Rosa Lee Oxer,
Stephen W. Perry,
Edwin H. Rea,
Sumner C. Sackett,
E. Howard Shildrick,
Henry B. Stotter,
Fred P. Sprague,
Frank E. Thompson,
Edward B. Woodard,
Arthur Winter,
Norman Carey Yarian.

The class occupied the front seats facing the platform, on which were seated President Scovell, Dean Rosenwasser, Rev. S. P. Sprecher and Prof. H. C. King of Oberlin, the speaker of the evening. After an overture by the orchestra, prayer was offered by Rev. Mr. Sprecher, and then the



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Dean introduced Prof. King. The speaker held the closest attention of the audience for nearly an hour.

We are sorry that space forbids our presenting this profound production in full. The following is an abstract.

ADDRESS

BEFORE THE GRADUATING CLASS OF THE MEDICAL DEPART-MENT OF WOOSTER UNIVERSITY.

After congratulating the Class upon their choice of profession, because the medical profession contains in itself both work and enjoyment, because it is a real calling, a ministry to the happiness of others, and a calling that is peculiarly personal, the speaker passed to his real theme:

Suggestions Looking to the Possible Harmony of the Mechanical and Ideal Views of Life. The physician's life contains in itself, in singularly concrete epitome, the conflict of life—that conflict which every thoughtful man must face, the conflict of knowledge and of faith, of scientific mechanism and ideals. For, on its practical side, the life of the physician is most closely connected with the ideal; for it is, or may be, a genuine loving service that can scarcely help making the great ideals of life real; while, on its theoretical side, the physician faces everywhere mere mechanical explanations, and that in man himself-explanations which seem to leave no room for the ideal. Everywhere he is led to lav great emphasis on bodily conditions, and there thus comes closer home to the thoughtful physician than to any other, this conflict between the mechanical and the ideal, between a merely materialistic view of life on the one hand, and an idealistic, ethical and religious view on the other.

Is there any possible solution? Is there really a way out? Can we affirm the ultimate harmony of the mechanical and ideal views? Can we say with Lotze, that mechanism is indeed "absolutely universal in its extent, but completely subordinate in significance"? Three preliminary considerations at once suggest themselves: first, that these very questionings, gropings, and strivings, are an unceasing proof of the reality of what they seek. They themselves bear witness that man is more than the creatures below him—"finished and finite clods, untroubled by a spark." "What I aspired to be, and was not, comforts me." In the second place, it is worth remembering that we have questions not merely concerning the ideal view. Are there no chasms in our scientific knowledge, no great unknowns here, no

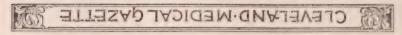


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world riddles? Has materialism no qualms of doubt, and atheism no misgivings? Is it all clear on the one side and dark on the other? "You call the chess board white, you call it black." The question to raise is, to what part of our life the moments of faith belong. And in the third place, it is worth remembering that while we emphasize the influence of the physical on the mental, if we are to speak here of influence at all, we must also recognize the immense

influence of the mental on the physical.

Passing now from these preliminary considerations, and taking the point of view of theoretical philosophy, three things may be said to indicate that the materialistic and the mechanical cannot be the whole life. First, the incomparability of the true processes, material and mental. this, both Du Bois Reymond and Tyndall have borne emphatic testimony, Tyndall declaring the chasm between the mental and the material, however far the knowledge of the latter goes, to be "intellectually impassable." Second, the fact that the materialistic philosophy as such may be said to be essentially a thing of the past. It has not been found possible to make the statement that thought is matter mean anything; and to say thought is the result of matter, the two processes being absolutely incomparable, is for materialistic philosophy to assert a miracle. The result of this line of thought is therefore to lead to the assumption of two independent series, material and mental, without any influence, one upon the other. That is, it may be said, that in the history of thought, the theory of parallelism has replaced materialism. But when the reality of both series is admitted, there can be no question which is for man the one of supreme importance. Man finds his life really in the mental series, not in the physical and chemical. Even the materialistic philosopher lives in personal relations, not in the region of physical and chemical changes. But we may, in the third place, go a step farther, and see that the mechanical and ideal views, instead of being in real antagonism, need and support each other. The mechanical view needs the ideal view to complete it, for every simplest reciprocal action is for us, as Lotze says, a final mystery. Just how one thing can act upon another we can as little explain in chemistry or physics as in psychology. Every such reciprocal action requires the unity of the Infinite Substance and the Infinite Life beneath it. On the other hand, the ideal view is itself helped by the mechanical. The universality of law, which is the essence of the mechanical view, points to exactly such a unity in the world as the ideal view demands; and the recognition of law is as essential to growth in character as it is to mechanism itself.



It is impossible, however, on purely theoretical considerations, to reach a complete solution of our problem. Ideal interests can nowhere be fully demonstrated. In this realm we cannot be said wholly to know, but we may hope to find reason for faith. Kant said of his own similar attempt, that he had to "destroy knowledge to make room for faith." Certain practical considerations, therefore, may be added to the purely theoretical grounds already given, to confirm our faith in the ultimate harmony of the ideal and the mechanical views of life. In the first place, science leaves all questions of ultimate origin and destiny open. These problems, in the very nature of the case, are insoluble for science. The problem of science is always and only, in present conditions, to find the reasons for a succeeding state. But neither, on the other hand, are we able to demonstrate our knowledge upon any other ground than scientific, of the facts as to origin and destiny. science is purely phenomenal in its point of view, and hence leaves all questions of the ultimate nature of things open. It does not pretend to know what matter and force are; and it may be quite possible that, in its ultimate nature, matter is something quite other and different than we commonly conceive it. In the third place, there is for every man really a double world: the world of facts and the world of values. The world of the Is and the Must, on the one hand, and the world of the Ought on the other. We can nowhere get the Ought from the Is; and we can at no point demonstrate the things of value. We cannot prove the We can only point it out. Therefore, in the beautiful. fourth place, two quite distinct problems arise: on the one hand, the problem of mechanical explanation—the problem of the scientist; on the other, the problem of ideal interpretation. It is one thing, as Paulsen suggests, to explain all the mechanical processes in consequence of which a printed page has come to be, and quite another thing to ask what this printed page means. The mechanical processes would be quite the same whether the page were considered as having any meaning or not. The work of creation, to an onlooker, would appear quite the same whether it were conceived to take place according to the will of God or according to purely mechanical processes. We shall not, therefore, look for God and the ideal only in the mysterious, only in the breaks in the evolution. The evidences of design will not seem to be only where there are flaws in the mechanical explanation. Evolution is at most only method, only fact. Its meaning is yet to be interpreted, and there can be no danger for any rational faith or any ideal interest





in a complete recognition of the fullest evolution, if only the new as it appears is recognized as new. But in the fifth place, we cannot finally keep mechanical explanation and ideal interpretation wholly apart. We must be able to believe that the ultimate reality is good and perfect; that the final fact of the universe is what it ought to be. here again, demonstration, evidently, is impossible. cannot prove that all that is is the result of a loving purpose. But what we cannot demonstrate, what thought cannot wholly express, life in its entirety, in the richness of its experience, may at least suggest; and our final practical suggestion, therefore, is that life is more than thought. Goethe says, "Existence divided by human reason leaves a remainder." It is not possible fully to formulate even the simplest concrete life. There are whole regions of our mental life that, properly speaking, cannot be expressed in thought at all. They exist for our living experience, and we have names for them; but we cannot communicate them to another who has not had a like experience. There is no way of explaining color to a blind man, or love to a being without feeling. But it may well be that though we can not wholly think reality, the whole being of man can experience it; and these inner experiences, these feelings of value, "reasons, determinations of worth," these ethical purposes and aspirations, this conception of a universal truth, this idea of beauty, and this sense of obligation, are as truly facts as anything else, and a complete philosophy must take account of them. We cannot be satisfied with views that, as Lotze suggests, only "impoverish faith without enriching knowledge." We have, therefore, ground for conviction of the ideal, though not demonstration of it. We have "room for faith." Through will and feeling, and not merely through thought, may we hope to understand the whole of life. This is the great truth of mysticism, and this, on the one hand, is the emphasis of Schleiermacher, and, on the other, that of Carlyle. Our great convictions must be wrought out through personal experience, feeling and willing as well as thinking, and through contact with great personalities. And I can wish nothing better for the members of this graduating class than that in the spirit of the Doctor of the "Bonnie Brier Bush," they may have such character, and be such personalities as to lead naturally to faith in the ideal, those to whom in their profession they minister. As Fichte says, "A godlike life is the divinest proof a man can give of the existence of God."

After another musical selection, came the presentation of diplomas. In conferring the degrees, President Scovel



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spoke with his usual fluency and impressiveness. This ceremony ended, Rev. Dr. Scovel pronounced the benediction, and then the faculty, the graduating class, alumni and many friends found their way to the Forest City House, where was spread the banquet.

BANQUET.

After attending to the "mechanical," as some one remarked, the company essayed the "ideal," and with the aid of Dr. H. C. Eyman as toastmaster, it seemed no trouble at all. Rev. Scovel responded eloquently to "Post-Graduate Work."

Mr. W. F. Walworth, unable to be present to respond to "Charities," sent a letter, which was read by Dr. Eyman; and Prof. H. C. King being called upon, took a philosophical view of the subject. "Law and Medicine" was the next toast. Mr. H. C. Bunts gained frequent applause during his response. Dr. J. C. Fritch, of the graduating class, spoke for "The New Doctor," and the Medical Department of the University of Wooster ended its annual exercises for the last time. The next commencement of this school will be under the name of the College of Physicians and Surgeons, Medical Department of the Ohio Wesleyan University.



ABDOMINAL ACTINOMYCOSIS.

Regnier in the Prager Zeitschrift für Heilkunde, Vol. XV, Parts 4 and 5, reports a case of Abdominal Actinomycosis. The patient was a woman 38 years of age, who had always enjoyed good health and had borne four children. The labors were all normal. Five months after the birth of the last child she began to complain of darting pains in the lower part of the abdomen, starting from the right hypogastric region, where a distinct swelling could be noticed.



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When first seen four months later, a firm ovoid-shaped tumor could be felt deep down in the right hypogastric region; it measured about nine cm. in length and was only slightly movable. It seemed to be somewhat firmly bound to the abdominal wall, which was infiltrated. The patient was very cachectic, and attempts at moving the tumor gave her great pain. The uterus could easily be separated from the tumor; the right ovary was not palpable. Laparotomy was performed. The tumor was found to be adherent to the intestines, and the vermiform appendix, which was greatly enlarged, could be followed into the mass. In attempting to take away the tumor the wall of the colon was ruptured and was seen to be infiltrated with abundant granulation tissue which contained many necrotic areas. It was not possible to remove the whole mass, and it was necessary to allow the wound to heal partially by granulation, since a good deal of the abdominal wall had to be taken away. The patient showed symptoms of collapse, and later signs of iodoform intoxication, together with a purulent bronchitis and some necrosis of the tissue of the abdominal walls, but nevertheless made a good recovery in ten weeks.

The mass which had been removed was found to consist of tissue imbedded in the thickened rectus muscle, which on cross-section presented a grevish glassy appearance. Around the muscles were seen many branching cavities filled and surrounded by granulation tissue in which the actinomycotic cocci could be demonstrated. In the mucous membrane of the vermiform appendix which was hypertrophied and showed signs of chronic inflammation, could be seen a scar, and enclosed in granulation tissue a small oval shaped sharp-edged foreign body of which the exact nature could not be made out. The patient was seen again three months later, at which time the presence of several suppurating fistulous openings in the scar was noted, and near the costal margin an area of infiltration about the size of a child's head. Regnier notes as the most interesting features of the case (1) the difficulty of the differential diagnosis; the absence of fistulous openings making the clinical picture rather one of a malignant tumor of the right ovary or of the omentum. (2) The finding of a scar and of a foreign body in the walls of the vermiform appendix proving that the disease started primarily from this point. (3) Extension to the intestines, peritoneum and abdominal wall. He argues that had the process been primary in the abdominal wall, it would have almost certainly led to the formation of fistulous openings, and would have given the typical picture of actinomycotic disease as seen in connection with the surface of the skin.



All books reviewed in this department can be found at the book store of F. J. HARRIS, Successor to L. Leavengood & Co., Publisher and Dealer in Subscription and Medical Books, 48 The Arcade, Cleveland, O.

MEDICAL BOOKS.

Infantile Mortality During Child-Birth and its Prevention. By A. Brothers, B. S., M. D., New York. 176 Pages. Price, \$1.50. Published by P. Blakiston, Son & Co., Philadelphia, 1896.

The general practitioner will find this a decidedly interesting and instructive book. That ten per cent. of children do not reach the age of one month is abundant reason for considering this subject. In the words of the author's preface, the object is "to point out the advances made in recent years in the interests of the unborn child previous to labor, during the critical hours of actual labor, and in the earliest period of life succeeding labor." One prominent idea running through the work is the accoucheur's responsibility to the child as well as to the mother. In opening, the author presents the results of a series of autopsies on still-born children, revealing some interesting facts. The maternal causes of infant mortality are discussed and the latter chapter considers the fatal causes. Following each chapter is an extensive bibliography of the subject treated. The merit of the work is sufficiently attested in its being awarded the William Surness Jenks Memorial Prize.

Text-Book of the Pathogenic Bacteria. Specially written for students of medicine. By Joseph McFarland, M. D., Demonstrator of Pathological Histology, and Lecturer on Bacteriology, in the Medical Department of the University of Pennsylvania, etc. Finely illustrated. Philadelphia: W. B. Saunders, 1896. Price, \$2.50 net.

In this attractive book we have, set forth in a clear and concise manner, an account of the technical procedures necessary in the study of bacteriology, a brief description of the life-history of the important pathogenic bacteria, and sufficient description of the pathological lesions accompanying the micro-organismal invasions to give an idea of the origin of symptoms and the causes of death.

The instructions given as to needed apparatus, cultures, stainings, microscopic examinations, etc., are ample for the student's needs, and will afford to the physician much information that will interest and profit him relative to a subject which modern science shows to go far in explaining

the etiology of many diseased conditions.

The book is profusely and handsomely illustrated, and presents the general make-up for which the Saunders' publications are rapidly obtaining a world-wide reputation.



New Books.

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Color-Vision and Color-Blindness. A Practical Manual for Railroad Surgeons. By J. Ellis Jennings, M. D. (Univ. Penna.), formerly Clinical Assistant Royal London Ophthalmic Hospital (Moorfields); Lecturer on Ophthalmoscopy and Chief of the Eye Clinic in the Beaumont Hospital Medical College; Ophthalmic and Aural Surgeon to the St. Louis Mullanphy and Methodist Deaconess Hospitals; Consulting Oculist to the Missouri, Kansas and Texas Railway System; Fellow of the British Laryngological and Rhinological Association; Secretary of the St. Louis Medical Society. Illustrated with one colored full-page plate and twenty-one photo-engravings. Crown octavo, 110 pages. Cloth, \$1.00 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry Street.

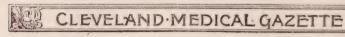
The increasing recognition of the importance of colorblindness, both congenital and acquired, as a cause of accidents on land and sea, has called forth a number of books on this subject. Among the latter ones that have come to our table is this of Dr. Jennings', designed for the use of railroad surgeons. Notwithstanding the high authority of Dr. Thompson, who has done so much to call attention to this subject, and has devised an excellent test for color-blindness, we do not believe that the clerical employees of railroad corporations are competent to make these examinations. We believe that they should be made by competent surgeons who are thoroughly familiar with the subject of color-vision and color-blindness, and while Dr. Jennings' book is a good one of the kind, we do not like the kind and think the fewer of them printed, the better. A man who is going to examine for color-blindness ought to know more than is taught in books of this kind or he might as well know nothing about it and place himself on the level with the lay examiner.

MISCELLANEOUS BOOKS.

THE NOVEL—WHAT IT IS. By F. Marion Crawford. This book is No. 10 of MacMillan's Miniature Series. Paper cover, 108 pages. 25c., or yearly subscription \$2.75. New York. MacMillan & Co.

The Miniature Series thus far contains three books which we would especially recommend. No. 7, "The Choice of Books," by Frederick Harrison. No. 9, "The Aims of Literary Study," by Hiram Corson, and No. 10, "The Novel—What It Is," by F. Marion Crawford, above noted.

When we know Mr. Crawford in "Mr. Isaacs," we meet him as a novelist. In this essay, "The Novel—What





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It Is," we know him as a man, and have a chance to study his personal opinions. The little book when completed leaves the same impression that a pleasant chat with Mr. Crawford might. It is stocked full of facts and personal opinions. Here and there a bit of wit sparkles in the argument, as Mr. Crawford tells us what a novel is and should be.

It might be well to let the book pass with only these words of praise, but it must be noticed by any reader that Mr. Crawford has taken the right to define a philosophical term. It is this little digression from fields of romance to fields of philosophy, that tempts me to notice the fact more at length. At one point in the essay Mr. Crawford says: *"Few novelists are poets; only one or two have been statesmen; none have been conquerors." He might have said, in addition to this: "Some poets have been philosophers, but it was the exception to the rule, and I am not an exception."

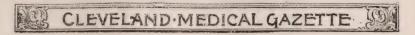
One cannot help feeling that Mr. Crawford has a confused idea of what he calls the soul and the heart. The following quotation will speak for itself: †"In England, Sir Andrew Clarke, M. D., has recently talked earnestly of 'the religion of the body,' and Lord Coleridge, with eloquence of 'the religion of the mind.' These things are good enough, no doubt, but what of the religion of the heart, which is after all the only religion there is—if the heart is the earthly representative of the soul? ‡"There are some people—fewer than is generally supposed—who really do not believe in the existence of the soul. Let me tell them that they are very near to denying the existence of the heart. Perhaps some of them do, and they may live to repent of their unbelief in this world, if not in the next."

Then Mr. Crawford defines the heart: "What is the heart, or, rather, what do we in common conversation and writing understand by that word? It looks a great deal like attempting to define belief, but belief has received an excellent definition, for belief is knowledge and nothing else, so far as the individual who holds it is concerned. What we call the heart in each man and woman seems to mean the whole body of innate and inherited instincts, impulses and beliefs, taken together, and in that relation to one another in which they stand after they have been acted upon throughout the individual's life by the inward vicissitudes and the outward circumstances to which he has been exposed. When all this is quiescent, I think we call it Self; when roused to emotional activity, we call it the Heart."

^{*} Page 93.

⁺Page 84.

[‡] Italics are mine.



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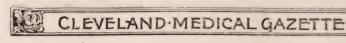
Had Mr. Crawford used the word "Soul" where he used "Self" we should have had a sensible and agreeable definition of soul, and one in harmony with reason and science; but the thoughtful reader cannot imagine how Mr. Crawford would have defined the term, (soul) and perhaps he could not himself, hence he does not try. He seems to take it for granted that we all know the soul to be "that mysterious transcendent something" which flits away at death, to repent at leasure throughout eternity, for its earthly unbelief, as Mr. Crawford warns those who do not believe they have this "myterious something," that they are liable to do. Is a knowledge of the soul, which is not included in Mr. Crawford's definition of Self or Heart, so general that such assumptions can be safely made? He says, belief is knowledge, which is the same as saying, unbelief is the absence of knowledge. If "belief is knowledge and nothing else," what knowledge have we of a ghost-soul that makes our belief in its existence of any value? We are asking now for real knowledge.

If Mr. Crawford holds that the novel should appeal to that which he terms Self, quiescent, or Heart, when active, to what source must the soul look for its inspiration? The dictates of law compel Mr. Crawford to desist from appealing to that which is supposed, and appeal to that which we can prove to be: an emotional mentality in man. That Mr. Crawford succeeds in this respect, no one questions, and we only ask him to stop shaking his finger of warning at those of us, so lacking in knowledge that we cannot believe in the dogma of the ghost-soul, for we know he can more effectively appeal to the "Heart" in his forthcoming "Paul Patoff," "An American Politician," and other fiction.

C. E. B.



A Medical Journal Exchange.—We call especial attention to a circular letter which we have received from Dr. George M. Gould of Philadelphia, and trust that it will receive widespread and prompt attention, both on the part of private physicians and of librarians. At some places hundreds of medical journals are piling up uselessly, while at others it is difficult to complete files. It was at one time proposed



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that the library of the Surgeon-General should undertake the work which Dr. Gould has now offered to do, but the officers in charge found the difficulties insuperable. The well-known energy and industry of the physician who has now taken the matter in hand seem to indicate that however great the difficulties may have seemed, they will all be overcome. We trust that the many libraries which have needless duplicates of journals will also answer the call, and permit their accumulations to be distributed. Dr. Gould's circular follows:

NOTICE TO LIBRARIANS, AND TO PHYSICIANS HAVING UNUSED MEDICAL PERIODICALS.

Dr. George M. Gould, 925 Walnut Street, Philadelphia, requests Librarians of Medical Societies, Colleges and Associations to send him lists (with precise dates, etc.) of

such periodicals as they need to complete their files.

He also begs physicians (or legatees) to send him accurate lists of such periodicals (or books) as they are willing to donate to libraries. Lists only are desired, not the periodicals themselves, until after correspondence it shall have been determined: (1) Where they are needed. (2) Where they will be properly cared for. (3) Where they will do the most good to Medicine.

It is Dr. Gould's intention to aid established libraries in completing their files by thus forming a kind of (gratis) Exchange, and to encourage the formation of new public Medical Libraries by utilizing some of the vast number of valuable medical publications at present going to waste or

destruction. - The Philadelphia Polyclinic.

The Best Advertising.—The best advertising a member of the medical profession can have is good work. Careful diagnosis and successful treatment will do more to build up the practice of a physician, young or old, than all the newspaper bellowings that money can buy. Let the quack brag of his miraculous cures and his enormous patronage; he can do no harm to the honest physician who studies his cases and treats them successfully.

An obscure, difficult case, rightly diagnosed and properly treated, will sing your praises far and wide. If you cure them they will naturally conclude you can cure others. As time goes on, your advertising mediums are gradually increasing, and if you keep up with the procession, you need no newspaper articles to bring you business. It is possibly a little slow, but so is your own development. When we start in the broad field of medicine, we only see the small



CLEVELAND MEDICAL GAZETTE



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territory with which we are most familiar. As our light grows stronger, other parts come into view, but it is a long time before we are able to recognize all the variations of the subject. A true conception of medicine requires years of study and experience. Advertising will not give you ability, and if you have not ability, your success will be short lived. —Kansas Med. Jour.

Competition in Medical Practice.—The following extract, says the Boston Medical and Surgical Journal, from a private letter written by a young Boston physician under date of May 26, 1827, may be of possible interest to young doctors of the present day who are inclined to think that the competitions of medical practice are keener than ever before: "The profession does not offer even a prospect of support to a young man here; and if this plan (the establishment of a medical journal) fails, I believe I shall try some other employment. There is as much contest about a district of the Dispensary which Lewis is about giving up as if there was a salary of a thousand dollars to go with it. The fortunate applicant will perhaps find he has caught—a Tartar." We are not nformed whether this young physician made a fortune out of a medical journal or "tried some other employment."—Maryland Medical Journal.

A New Orchestra Without Men.—Professor J. B. Schalkenbach, formerly the organist of the Polytechnic Institute of London, has recently invented and constructed an electrical orchestra, which, says an article quoted in Current Literature, is very effective. An organ with two keyboards and a number of stops is connected by electric wires with a large number of musical instruments, which are distributed over the space usually given up to the orchestra, and kept in place by various stands. While a chair is located next to each instrument, the only man in the entire orchestra is Professor Schalkenbach himself, who takes a seat at his organ, from where he conducts, so to speak, his mysterious musicians. Although it is advertised that the entire arrangement is mechanical, and that electricity is the agent doing all the work in this orchestra, a sensation of timidity, and even awe, is felt by many visitors. The electric orchestra is now exhibited in a Vienna concert hall, and surprises even professional musicians through the extraordinary combinations of sound brought out by Professor Schalkenbach, who has great musical talent, and is an excellent electrician.

Accuracy of Finger Prints.—The accuracy of "finger prints" as a test of personal identity is well shown by some recent photographs of Francis Galton. In a case of twins,



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their photographs and measurements were closely alike, but the minutiæ of their finger prints were quite different. An enlarged photograph of the print of the hand of a child eighty-six days old shows the development of the distinctive little ridges on the skin even at that early age.—Current

Dr. Bayard Holmes, Secretary of the American Medical College Association, spent Sunday in the city, the guest of Drs. Parker and Ohlmacher.

A New Eye, Ear and Throat Society.—Steps are being taken to organize an association of Western eye, ear and throat specialists. A preliminary meeting has been announced for April 7, 1896, to convene at Midland Hotel, Kansas City, Mo.

The Late Dr. Hiram Corson.—In Dr. Corson's death, at his home in Pennsylvania, the medical profession loses an unusually aged member and a man of exceptional wisdom. His career has been long and most useful. He was revered by those of his colleagues who had the privilege of knowing him personally, and not by them only, but by many who had read his occasional contributions to medical literature. —The N. Y. Med. Journal.

Dr. August McShane has retired from the editorship of the New Orleans Medical Journal.

Dr. H. H. Little, one of Cleveland's most respected citizens, died on the 9th inst. Dr. Little retired from the practice of medicine many years ago.

After a Competitive Examination for positions on the House Staff of Cleveland General Hospital, appointments were given to Drs. H. B. Ormsby, D. R. Kline, Wm. H. Hyde and H. Greenberg.

Dr. H. C. Luck has returned from a trip abroad and opened his office at 122 Euclid Avenue.

The Ohio State Pediatric Society will hold its next meeting at Columbus, on Wednesday, May 27th. President, Dr. S. W. Kelley of Cleveland; Vice President, Dr. J. P. West of Bellaire; Secretary and Treasurer, Dr. G. M. Clouse of Columbus; Chairman of Council, Dr. J. M. Dunham of Columbus. All who expect to present papers and have not yet communicated with the Secretary, should do so at once, naming the title of the paper. Judging from those already sent in an interesting programme is assured.

Case Number 13,105,264.—One of our industrious confreres reports the above case, by the way, an interesting one of ringing in the ears and slight deafness. But we would be interested to know where the other thirteen million, one hundred and five thousand, two hundred and sixty-three were reported.

The Ohio State Medical Society will hold its fifty-first annual convention in Columbus, May 27-29. President, Dr. Dan. Milliken, Hamilton, O.; Secretary, Dr. Thomas Hubbard, Toledo; Treasurer, Dr. Jas. A. Duncan, Toledo; Local Committee of Arrangements: Chairman, Dr. J. F. Baldwin, Columbus. Titles of papers should be sent to the Secretary by April 1st. Every regular practitioner in the state should feel it his duty to do something to advance the important work and strengthen the influence of the state organization of the profession.

The Cuyahoga County Medical Society met in the rooms of the Builders' Exchange, Arcade, at 8 p. m., March 5, President Dr. Handerson in the chair.

Dr. D. S. Hanson reported that owing to the illness of Dr. W. J. Scott, no progress had been made by the committee on health resolutions.

On motion of Dr. Baker, the secretary was empowered to issue delegates' certificates to the number of ten, to members desiring to attend either the Ohio State Medical Society or the American Medical Association.

Cases were reported by Drs. D. S. Hanson, F. E. Bunts, W. E. Weber and S. W. Kelley relative to stricture of the

esophagus by swallowing caustics.

Dr. W. E. Weber gave a written report of a case of

penetrating wound.

Dr. S. W. Kelley presented a paper on "Aeroporotomy, &c., &c.," which was discussed by Drs. Tuckerman, Baker, Hanson, Aldrich and Brashear.

Dr. C. J. Aldrich submitted a case of brain tumor, showing the specimen, and also drawings and photographs, which were generally discussed.

B. F. OSWALD, Secretary.

The Examination for Appointments on the House Staff of Cleveland City Hospital resulted in the appointment of Drs. Wm. O. Osborn, H. G. Morse and E. H. Tanner.

The Cuban War and talk of raising regiments in the U.S. have caused no small excitement among medical students and recent graduates, anxious to acquire experience and fame as army surgeons.



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The Cornell Brain Association of Boston, Mass., has sent out a letter asking many well known educated persons to bequeath their brains to that institution. Eight brains have already been received, and many other owners of like organs have signified their willingness to grant the request of the association as soon as they are through with them.

It has been suggested that sundry persons, especially some among the medical journalistic fraternity, might as well deliver the chattels over, for they are evidently of no use to

the owners at present.

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Dr. and Mrs. Chas. J. Aldrich will sail on the "St. Paul" on April 8, for a season of European study.

The Cuyahoga County Medical Society met on the evening of Friday, April 3, and elected officers for the year, as follows: President, Dr. O. B. Campbell; First Vice President, Dr. G. C. Russell; Second Vice President, Dr. W. C. Webber; Treasurer, Dr. L. S. Chadwick; Secretary, (reelected) Dr. B. F. Oswald; Censors, Drs. B. L. Millikin, J. Perrier, and F. K. Smith; Trustee for five years, Dr. H. E. Handerson.

Drs. Baker, Tuckerman and Handerson were appointed a committee to represent the Society at the proposed federa-

tion of scientific societies.

On motion of Dr. Baker, a committee was appointed and instructed to prepare a protest against changes in the superintendency of the State Hospitals for the Insane. The resolution was ably supported by Dr. Tuckerman, and passed unanimously. It favors retaining in their present offices, Dr. Eyman of Cleveland, and Dr. Richardson, because of their efficiency, and protests against changes being made for political reasons.

Dr. B. L. Millikin, Dr. F. K. Smith, Dr. H. B. Herrick, Dr. L. B. Tuckerman and Dr. S. E. Kaestlen reported

cases or read papers.

The Third International Congress of Dermatology is to be held in London, on August 4 to 8, 1896. The programme is as follows:

Tuesday, August 4, Preliminary business; 12 o'clock, Presidential address; 3 o'clock, p. m., subject, "Prurigo;"
1. Dr. Besnier (Paris); 2. Prof. Kaposi (Vienna);
3. Dr. J. C. White (Boston); 4. Dr. Payne (London).

Wednesday, August 5, 9 o'clock, a. m., Clinical demonstration of cases; 10.30 a. m., subject, "The Etiology and Varieties of Keratosis;" 1. Dr. Unna (Hamburg); 2. Dr. H. G. Brooke (Manchester); 3. Prof. V. Mibelli (Parma); 4. Dr. W. Dubreuilh (Bordeaux). 3 o'clock,

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p. m., Papers. 10.30, a. m., subject, "Syphilitic Re-inflection;" 1. Prof. Fournier (Paris); 2. Prof. Lang (Vienna); 3. Mr. Alfred Cooper (London); 4. Dr.

Fitzgibbon (Dublin). 3 p. m., Papers.

Thursday, August 6, 9 a. m., Clinical demonstration of cases. 10.30 a. m., subject, "The Connection of Tuberculosis with Diseases of the Skin other than Lupus Vulgaris"; 1. Dr. J. Nevins Hyde (Chicago); 2. Dr. Hallopean (Paris); 3. Dr. Radcliffe Crocker (London); 4. Dr. G. Riehl (Vienna). 10.30 a. m., subject, "The Duration of the Period of Contagion of Syphilis"; 1. Mr. Hutchinson (London); 2. Prof. Campana (Rome); 3. Prof. Lassar (Berlin); 4. Dr. Teulard (Paris). 2 p. m., subject, "Ringworm and the Tricophytons"; 1. Dr. Sabourand (Paris); 2. Prof. Rosenbach (Gottingen); 3. Mr. Malcolm Morris (London). Many contributions to this debate promised.

Friday, August 7, 9 a. m., Clinical demonstration of cases; 10.30 a. m., subject, "The Nature of Relation of the Erythema Multiforme Group"; 1. Prof. DeAmicis (Naples); 2. Dr. T. H. Veiel (Stuttgart) 3. Dr. P. A. Morrow (New York); 4. Dr. Stephen Mackenzie (London); 3 p. m., Papers. 10.30 a. m., subject, "Malignant Syphilis"; 1. Prof. Handlung (Copenhagen); 2. Prof. Neisser (Breslau); 3. Prof. Tarnovsky (St. Petersburg). 2 p. m.,

Clinical demonstration of cases. 3 p. m., Papers.

Saturday, August 8, 9 a. m., Clinical demonstration of

cases, followed by papers.

Note.—The Congress has been fortunate enough to secure for its use, the building known as Examination Hall, on the Victoria Embankment. This will afford every facility for all kinds of demonstrations, cases, pictures, museum, etc.

Special efforts are being made to have large clinical demonstrations of cases, and all who have been in London

know how rich is the material there.

It is of the greatest importance that those intending to join the Congress should notify the secretary, Dr. J. J. Pringle, 23 Lower Seymour St., London, W., of their intention as soon as possible. The membership fee is \$5.00, which should be sent in the form of a one pound sterling draft on London, or P. O. order to the same amount. Geo. Thos. Jackson, 14 East 31st St., New York, Secretary for the U. S.

Index to the Medical Press.—The opinion has been repeatedly expressed by leading physicians that a monthly index to the medical press of the United States and Canada would meet with universal encouragement and support.



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Such a publication is now about to be attempted by a New York publisher.

The initial and each successive issue will treat the entire medical literature of the month immediately preceding as one vast volume, to which it will aim to be the Index or Contents Table. For this purpose, an Editorial Staff—the personnel of which has been carefully chosen, in order to assure prompt and accurate work—will review monthly the entire Medical Press of the United States and Canada, including, in addition to the published transactions of the various National and State Medical Societies, the current number of every important medical periodical published in the two countries. The result of its labors will be presented in the form of a monthly magazine of from 112 to 128 pages, to be known as Weir's Index to the Medical Press.

Each monthly part will thus be a reference work of constant value to the author, professor and specialist—as well as to the general practitioner, enabling him to follow closely the general trend of medical science, and avail at

once of any matter of special interest to him.

We have arranged to have the initial number of the Index sent without charge to subscribers of the GAZETTE, provided the request is sent in before April 15. Address this office.

The Reform in Sleeping Methods.—The rampant reformer of the day, says an article quoted in Current Literature, has now invaded bedrooms. The orthodox fashion in making up the beds so as to gently slope toward the feet, and having a good-size pillow or two under the head, is all wrong. A prominent French doctor, M. Vilhelm Fischer, is responsible for this statement. He asserts that after a long series of experiments he has proved conclusively that to sleep in a bed prepared in the old-fashioned way is simply to induce ailments of all kinds. You must have your head on a level with or lower than your feet. If pillows are to be used, they must be under your feet instead of under the The result, he claims, will be amazing, being a sure cure for insomnia, as well as a preventative for the nightmare. Dr. Fischer says further that sleep in this new position "will always be intellectual, because more profound; the entire nervous system ameliorated, while people inclined to lung and kidney troubles will be vastly benefited by sleeping in this position." To prevent any inconvenience by too sudden a change, the pillows should be gradually reduced and finally placed under the feet.





PERSONAL IDENTIFICATION.*

BY HAROLD REMINGTON, ATTORNEY-AT-LAW.

The basis of the law of Personal Identification is, that no two human beings are exactly alike. This is indeed a fundamental law of all nature. Nature abhors repetition. We are told that the great philosopher Liebnitz, whilst discoursing in a garden once with the Princess Caroline, illustrated this truth by saying that no two leaves, precisely alike, could be found on any bush there. A gentleman present took up the challenge, but after making thorough search, was obliged to confess that the philosopher's statement was probably correct. As with the lower animals and with vegetable nature, so it is with human beings. No two persons, when they are both before us, are found to be so exactly alike, even in the cases of twins and Chinamen, that they cannot be distinguished.

And yet the subject of identification has always been a most difficult and perplexing subject in law, one reason being that the faculties of observation, perception and memory of sequence of events are exceedingly defective and inaccurate in men, especially in civilized men. Men fail to identify and again mistakenly think they identify, because

^{*}Read before the Medico-Legal Section of the Cuyahoga County Medical Society, February, 1896.



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in the words of the Scriptures, "Having eyes, they see not; and having ears, they hear not;" or oftentimes, (which is just as bad) seeing, they see too much, and hearing, they hear too much.

The speaker well remembers a trial he was once engaged in, wherein one of the issuable facts was whether a certain horse was running away, or was simply being driven hard by a careless driver.

Five different witnesses, all standing within a few feet of each other, and all strictly honest as I believe, testified as to the appearance of the horse and its driver at the moment of passing the group. One said the horse's head was raised rather high, that the horse was not kicking, that the driver appeared to be smiling; another that the horse's head was down between its fore-legs, that he kicked once just as he was passing; a third, that the horse stopped when just opposite the group and kicked twice above the whiffle-trees with both hind feet and that the driver looked scared and pale; one of the remaining witnesses testified under crossexamination that the horse stopped still, jumped into the air and kicked with all four feet at once; whilst the last one, a liveryman, said the horse was not kicking at all, but was simply running hard with his neck stretched out straight. It was naturally somewhat hard to reconcile all these statements, and the only way to get at the truth was found to be to investigate the comparative powers of observation of the respective witnesses.

And the same difficulties arise in determining the identity of persons. Although, without doubt, the question of personal identity arises more frequently in criminal law than in civil, yet some of the most bewildering cases on record come from the domain of civil practice. Everyone has heard of the noted Tichborne case in England, involving a large estate and depending upon the identity of one who claimed the estate as heir, the trial of which lasted nearly four months.

A butcher named Orton, having several aliases, endeavored to personate a baronet who had disappeared and was the heir to a large entailed estate, and so well had he studied his part and so successful was he in his impersonation



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that he was sworn to be Sir Roger Tichborne by eighty-five witnesses, including Sir Roger's mother, the family solicitor, one baronet, six magistrates, one general, three colonels, one major, two captains, thirty-two non-commissioned officers, and privates in the army, four clergymen, seven tenants of the Tichborne estate and seventeen servants of the family. There were almost as many more who swore that he was not Sir Roger. Then a host of witnesses were produced who swore that the claimant was one, Orton, a butcher, and again this testimony was contradicted by as many more who said he was not Orton. The case finally was decided against the claimant, he breaking down under a very prolonged cross-examination. In this case, much depended upon the scars and marks being absent from the claimant's person that were known to have been present on Sir Roger's body when he disappeared. Also there were considerable discrepancies in the height and in the type of face. But the claimant's counsel contended that the twelve years of roving life which it was alleged Sir Roger had led in Australia had effected the change in him from the slim young man who disappeared, to the well developed man who was then before them. Sir Roger, however, was proved to have had a broad, flat nose, and badly formed ear lobes, whilst the claimant's nose was perfectly straight and aquiline and he had well formed ear lobes; and these features were not likely to have been changed by age, nor intervening years of hardships.

Quoting from Harris' "Before and at Trial," page 372: "One of the singular cases of bereavement by the sinking of the Metis a few years ago was complicated with interesting circumstances, and a strange confusion of personalities. A husband who was saved lost the wife he had married only two days before, and finding a body which he recognized as hers, he had it coffined and taken to the house of her parents, where it was found to be the body of a stranger, but the hopes raised by this remarkable mistake were dashed by the discovery that the dead body of her who was really his wife had been picked up by a schooner and taken to Newport. But," the author goes on to say, "if any testimony as to the identity of persons can be trusted, is it not that of



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a man as to the woman he has courted and just married, and whose face and other personal traits might be reasonably supposed to be clearly and indelibly fixed upon his memory?"

In criminal law, the question of the identity of the prisoner with the perpetrator of the crime is almost always in issue. This is undoubtedly because crime is usually committed in the dark, in secret, where no witnesses are present. And even in cases where witnesses are present, such witnesses as a rule catch only a momentary glance of the criminal and oftentimes are in such a state of mind. rudely awakened from sleep, or suddenly frightened, as to preclude accurate observation. The sudden assailant strikes his blow and is gone, or his victim becomes insensible. The sneak thief or pickpocket glides away in the crowd like a snake in the grass. The midnight burglar, as a rule, is disguised both in dress and features, and the high tension of his nerves, no doubt, gives even his voice an unnatural sound. Moreover, some criminals are as adept in making up disguises as actors themselves. Add to these circumstances, the witnesses own perturbation, the possible strangeness of his surroundings and sensations, and one can well see that human powers of observation become, under circumstances, very unreliable as means identification.

Lord Chief Justice Cockbourne says, in the famous Tichbourne case just cited, "The question of identity is one of the most difficult questions which courts of law and juries have to deal with. They are mostly cases in which the persons to be identified have only been seen for a moment or for a short time. A man stops you on the highway, puts a pistol to your head and demands your purse; a garroter seizes your throat and while you are half strangled his confederate rifles your pocket; a burglar invades your dwelling by night, and you have only a rapid glance at your unwelcome visitor—in all these cases the opportunity of observation is so brief that mistake is possible; and yet," the Chief Justice adds: "the lives of people would not be safe if we did not act on recollections even though they are so brief."



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But there is one very interesting query that arises in this connection: Do not a man's faculties and power of retention of impressions become so intensified by sudden encounters of this kind, that the minutiæ of the criminal's features are all the more vividly recognized and fixed?

However, considering all things, it is doubtful whether the testimony of a direct witness, one who will swear positively that this is the very man, is to be taken as conclusive without strong corroborating circumstances, coupled with the testimony of experts, who gather up the separated facts and fit them together.

A case directly in point is that of the noted trial of the farm hand, Webster, for the murder of the old farmer, Harrington, in Eastern Ohio, some few years ago, where the prisoner was positively identified as the murderer by the old farmer's wife, who said she knew it was the very man who killed her husband. And in this case the witness was well acquainted with the prisoner. Webster was tried four times on change of venue; was thrice convicted and twice sentenced to be hanged, almost solely on the old lady's testimony that she recognized him, but was finally acquitted, and from facts which eventually came out, rightly so, beyond question. From his desire to shield another person from shame, he had refrained at the trial, it appears, from proving the complete alibi which existed.

Thus come in the important functions performed by the medical, legal and other experts in assisting in the proof of identity.

Photography has rendered invaluable assistance to the law of Identification. In the famous Col. Coit trial at Washington C. H. this winter, it will be remembered photographs were introduced to show the relative position of the mob and the soldiers. The rogues' gallery, familiar to all, is also an interesting testimonial of the assistance rendered by photography to the subject of identification, although its value is generally greatly impaired by the efforts of the prisoner, (who has an inherent dislike of being "mugged"), to disguise his features by grimaces and scowling.

However, we are warned that photographs are not always safe guides in close questions of identity, for not

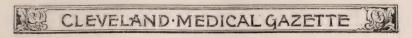


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only can the re-toucher change features materially, but oftentimes the negative itself displays a poor likeness. We all know how much the pose, the lights and shadows, etc., have to do with accurate likenesses. We have one amusing instance on record, where, in a prosecution under a law to prevent smoke nuisances, a photograph was exhibited in court room which showed a dense cloud of smoke pouring out of the chimney of a certain factory complained of. The opposing counsel, however, insisted upon having the negative produced, and when it appeared, the dense cloud dwindled to a comparatively light column of smoke, the re-toucher having evidently improved upon nature. In all cases of attempted proof of identity by photographs the rule is that the person taking the photogoaph should testify to it, or that it should be acknowledged in some way by the adverse party as a true likeness, before it is admissible in evidence.

I understand that in Germany and France the police have a complete system of identification of criminals by photographs of the ears, and that this system is being adopted in some parts of our own country. Whether photographs of the ear are valued as means of identification because the ear has great individuality, or is hard to disguise, or the inroads of a hard life are least likely to touch it and destroy its individuality, I cannot say. Nevertheless, I venture to say that not a person here could tell his own ear if it were off his head—so little do we observe peculiarities of ears unless our attention is called to them. Men as a rule act upon the most familiar evidence, the face and its expression, in identifying their friends that they meet on the street, rather than upon the surer, but more unfamiliar evidence which, as we have seen, the German and French police value so highly-thus illustrating the common observation that men act upon much different evidence in the ordinary walks and affairs of life than that which would be required in the courts of law; and they are usually quite safe in doing so, fortunately.

The teeth are valued very highly as a means of determining identity, and in fact are among the surest tests, the reports being full of cases of identity proved by this means.



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By the teeth it is often sought to determine the age, habits and even the temperament of an unidentified dead body. I am not sure of the reliability of my information, but I am told that fleshy people are likely to have broad, flat teeth, and thin people long narrow ones. Again, the tobacco user is pretty sure to have a deposit of nicotine left upon his teeth. One of the many instances in the books where persons have thus been identified was a case where the body had been buried eleven years. A Mrs. V., who died in 1843 under suspicious circumstances, pointing to her husband and the woman who soon thereafter became his second wife, was left undisturbed in her grave until 1859, when her coffin was opened. Of course there was great difficulty in identifying the remains of the skeleton as being Mrs. V's, a point which was necessary nevertheless to be proved as constituting part of the corpus delicti. There was much testimony as to different means of identification, but all means were found inconclusive and unsatisfactory, save the testimony of certain relatives as to four artificial teeth connected by a gold band, which they said Mrs. V. had had. At last, in taking the skull out of the earth, four artificial teeth, connected by a gold band, fell out, and these were positively identified as belonging to the deceased. Two firm back teeth remained in the upper jaw, and in the under jaw eight teeth remained unaffected by time or decay.

Blood stains and seminal stains, the hairs and bones, and the imprints of the hands and feet, and indeed every other individuality renders valuable assistance to the determining of identity; and almost every physician of any practice has within his own recollection more than one case no doubt, where he has been called upon to determine the age, sex, race and general appearance of some unknown by the signs he has learned to look for. The criminal classes, it is found by experience, are very fond of tattooing, and tattoo marks often afford valuable assistance in determining the identity of prisoners. Quoting Wharton & Stille, Med. Four., Vol. 3, Page : "Besides the general appearance, dress, manner and voice of a person, peculiar marks upon the body are a very important, perhaps much the most reliable means of identification. Scars, burns, cica-



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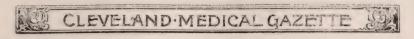
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trices, fractures, etc., upon some portion of the body of the prisoner, distinctly remembered by those who have seen them, will generally be received as evidences of identity. Very often where the scars resemble each other they may have been caused by different agencies. In such cases the evidence of physicians can be brought to testify as to the cause of the wound. Still such evidence is not always reliable, for a mark of such a nature may exist from exactly the same cause in two different persons. It goes a good way, however, in establishing identity, and is generally conclusive unless rebutted by stronger contradictory evidence." Again, "The gender, age, size, stature, walk, bearing, color of hair and eyes, shape of eyes and nose, appearance of teeth, the condition of the hands, feet, bones and joints must be observed, together with changes produced by pregnancy, births, miscarriages, disease, etc. Moles leave important evidence, which continue throughout life, unless cut away, and then a scar remains."

In this era of gruesome murders the necessity frequently arises of identifying dead bodies. A boy in the woods stumbles against a half decomposed body and hurries off to raise the hue and cry. Then the coroner, if he be careful, takes note first of all of the possible marks of identity visible upon the body, the characteristics of the hair, eyes, teeth, hands, feet, etc.

One of the hardest tasks must be to identify a headless trunk, for within the narrow compass of the few square inches of a person's face is contained all the most common means of identification. When we meet a friend on the street, we look at his face and there, within the radius of a few inches about his nose, we see the "person" whom we recognize. It is by his face and its expression that we recognize him. Therefore it is that a headless trunk must always be most difficult to identify.

This was well illustrated recently in the case of the murdered girl, Pearl Bryan. The writer happened to be in Cincinnati, the neighborhood of the occurrence, at the time of the murder, when the papers were full of pictures of the scene, and of the query, "Who is the murdered woman?" At the first the physicians declared she must have been a



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woman of about thirty-five and the mother of children! It turned out eventually that she was a girl of scarce twentythree and at any rate not the mother of a born child. Indeed, this very horrible murder illustrates very well and quite freshly the process of identification. At first, of course, the object was to prove the corpus delicti.-Whose was the dead body? And was a murder committed? The fact that the head was gone deprived the investigators of their best and most usual means of identification. And as to the age of the person, the guess was very wild as we have seen. That it was a case of murder was very evident from the fact that the body was clothed and there were evidences of a struggle near at hand and the physicians seemed to be certain indeed that the cutting off of the head was begun before life was extinct. How they determined this I do not know. The personal peculiarities of dress and form and limbs were of course noted, but still no clue to the girl's identity was had, for many days. In this case arose the necessity of a double identification; identification not only of the victim, but also of the murderer.

As to the identity of the murderer, it was at once seen that they must be acquainted with the use of drugs, evidently medical men, chemists or pharmacists. And thus, step by step, the process of identification went on until at last the negro cabman told his story and the midnight funeral procession went out to Pearl Bryan's dying place in the deserted woods.

Again, the scientific murderer will mutilate his victim and dismember it so that it requires an anatomist to put the pieces together and sometimes indeed he destroys all but a few traces of his victim. The noted case of Professor Webster is in point where the professor so artistically disposed of Dr. Parkman's remains that he almost escaped punishment. However, we have the amusing record of a suspected crime where what appeared to be the hand of a human being partially decomposed, was found in an ash barrel. Some medical students living in the house to which the ash barrel belonged were arrested on suspicion and for a time things looked dark for them. Some one thought to bring in a microscopist to make an examination



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of the object, and all were relieved by the scientist declaring it to be the paddle of a big turtle.

Sometimes the proof of the *corpus delicti* is impossible, owing to the destruction of all traces of the crime. Nevertheless the old saying that "Murder will out," seems almost always to be verified. Quoting Harris on "The Law of Identification," § 253, "A curious and interesting case, though revolting in the details of its enormity, was tried on an indictment in North Carolina in 1860, involving the identity of the alleged deceased.

One Williams was indicted for the murder of Peggy Isley. It appeared that William Isley married the mother of the deceased, and resided half a mile from defendant. Evidence tended to show that defendant had, for a year or two, criminal intercourse with the deceased. She left the home of her step-father about 10 o'clock, on a Thursday night in December, 1859, and carried a calico frock, two petticoats, and a piece of cloth, and was never seen again.

Defendant was one of the special court of Rockingham, which held a session on that day, and he left the village of Wentworth for home after night, about seven or eight o'clock. Several days thereafter, the neighbors collected to make search. On Sunday, December 11th, they examined about Troublesome Creek, which flows through defendant's land. About six hundred yards from the house, in a private place near the creek, they discovered where a log heap had been burned; some logs were still burning; fragments of bones were found among the ashes and were shown to the defendant, but he denied knowing anything about them. Most of the bones were found in the center of the log heap. He was informed that another search would be made; they went next day and found that the burnt place had been dug up by defendant's direction. There was a hollow beech tree near this place and on the 12th it was on fire.

On January 23, 1860, the coroner went to the creek, to make further search, and to hold an inquest. Defendant said the burnt place was intended for a plant bed, and had been enlarged, and in so doing the beech tree had been



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burnt down. A black substance was found in the tree, which the witnesses called bones.

They dragged the creek and found bones, three hair pins, three common pins, a button and a hook and eye, a black substance and fire coals, similar to those in the log pile; these were preserved for the coroner and produced. Four physicians and one dentist were examined, and they proved or recognized part of a human skull, and part of the cheek bone of a human being. The dentist identified human teeth among the bones exhibited. The defendant said he had no doubt as to the death of Peggy Isley, and that the bones found in the creek were hers; that her step-father or some of the boys had knocked her in the head and thrown her body in the log pile, and that he did not blame Isley for trying to get his head out of the halter by putting others in. The articles found were such as deceased usually wore. It was shown not to be the time to burn plant beds. He was courting another girl or woman at the time, who had talked to him about the deceased. All this testimony was admitted; he was found guilty, and this was affirmed."

The rule which seems to have prevailed at one time in England, "that upon charges of homicide, the accused shall not be convicted unless the death be distinctly proved either by direct evidence of the fact or by inspection of the body," was held not to be of universal application, but when the identity of the body is completely destroyed by fire or other means, the corpus delicti, as well as other parts of the case, may be proved by presumptive or circumstantial evidence.

So far as the rules of court are concerned, it cannot be said that any means of identification are inadmissible, nor that as a matter of law any method or line of evidence is insufficient; they are generally questions of fact for the jury. Thus, in one case, the prisoner's counsel sought to have the court declare the testimony of two witnesses that they recognized the voice of one of two burglars, to be—as a matter of law—insufficient evidence of identity; but the judge refused to give such instruction to the jury and ruled that it was a circumstance along with other circumstances to go to them in determining the identity of the criminals.



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Although, from a strictly logical point of view, it is calling for a mere opinion to ask a witness: Who is this man?—an opinion deduced from the witnesses' acquaintance with the hundred and one peculiarities that go to make up the man, yet questions of identity have always been one of the exceptions to the rule limiting opinion evidence to experts, and so it is always permissible to ask a non-expert witness, as was asked a few nights ago of the negro cabman in Cincinnati, confronting a crowd of prisoners containing Pearl Bryan's murderers: Which is the one? Indeed, one may recognize another person without a waver or a doubt and yet be unable to describe him, so many and so evanescent are the traits and appearances that go to make up identity. Of course, under such circumstances, it is always necessary for the witness to state first the means and extent of his observation.

It is a fundamental principle of law that a person accused of crime shall not be made to give evidence against himself.

This rule has been invoked to protect prisoners from the application of certain tests of identity. Thus, it has been held to be error for the court to compel a prisoner to put his foot in a pan of soft mud to ascertain how it might compare with the foot-prints that appeared in the mud about the scene of the crime. It has also been held to be in error to compel a woman to unwrap her hand that she alleged had been hurt; also to compel a prisoner to expose tattoo marks upon his person.

Finally, in closing, it is interesting to contemplate that the features we use and rely upon most in our daily recognition of friends and acquaintances—the eyes, the mouth, the hair and beard, the expression of the face—are precisely the least permanent and reliable means of identification, when it comes to the test. The eyes change, the mouth changes. Sickness, age, sorrow and vice all leave their marks upon the eyes and mouth; and the expression of the face is changed or modified by every day of life and every vicissitude of fortune and habit of mind or body.



"AEROPOROTOMY," ETC., ETC.*

BY S. W. KELLEY, M. D., CLEVELAND, O.

Mr. President and Gentlemen:—I do not know that I have anything new to offer you this evening excepting the word used as a title, and which now salutes your ears for the first time. It is to the word itself that your attention is invited.

I have long felt the need of a word which should include in a class all the various operations for letting air into the air passage. For instance, a doctor will say, "It appears to me that some operation is necessary to relieve the stenosis of the larynx. Whether it should be an intubation or a tracheotomy, I will leave for you to determine." And I may answer "Yes, the indications are imperative to let in more air." In such roundabout phrases is one led to express a meaning which might be conveyed by the generic term which I now propose. We have the various operations—tracheotomy, laryngotomy, laryngo-tracheotomy, and intubation, but we have no generally accepted or acceptable word to include all these without specifying which. The word bronchotomy has sometimes been used in this sense. One sees it in some text-books and treatises, bronchotomy being then subdivided into tracheotomy, larnygotomy, etcetera. Although the original meaning of the word bronchus, in the Greek, was the trachea, or windpipe, with us it has come to signify one of the branches of the trachea after it divides; and while in olden times bronchotomy might mean a cutting into the windpipe, with the modification which the application of the name bronchus has undergone, the term is misleading, as there is no opening made into a bronchus. The word bronchotomy seems never to have been generally accepted as a generic word, and I venture to say, is not nearly as familiar to any of us as the word tracheotomy. One sees the word tracheotomy compelled to do service not only as a specific, but as a generic term. In many books you will see a chapter headed "Tracheotomy," which is found upon inspection to treat of tracheotomy proper, of laryngotomy, and of

^{*}Read before the Cuyahoga County Medical Society.

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laryngo-tracheotomy. Perhaps there is also a sub-heading for intubation, or that operation is introduced in a separate chapter. It was entirely unknown until recent years, and never included in the word bronchotomy. Thus it has often seemed to me that it would be convenient to have a word that should be understood to mean: "to open into the air passage," without designating what part of the air passage is opened into. And with this idea I have ventured to coin the word aerporotomy, or if you prefer, as more euphonious, aeroporotomy. Its derivation you will readily see: Aer, aeri or aero—air.

Por, from poros—passage.

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Tomy, from tomy—a cutting or opening.

Hence, "To open the air passage."

It might be objected that tomy means too distinctly to cut, and yet, we find that it is also used in a wider sense, just as phlebotomy is defined "to open a vein," as well as "to cut into a vein," or "to let blood from a vein." And I think aeroporotomy may mean to let air into the air-passage without meaning strictly to cut into the air passage. (Neither does phlebotomy designate which vein is opened. Conversely we say "to open" an abscess when we mean "to lance" it.

Some might prefer the word "aerporostomy" corresponding to gastrostomy, enterostomy, etc., but that would convey the meaning of a permanent opening, a mouth or fistula.

I think there are gentlemen here better versed than I in languages, dead and alive, and I would be glad to hear opinions from those present upon this proposition. Is not the point well taken that we lack a generic word with this meaning? And is this not perhaps an acceptable word and worth adopting? Or can some one think of a better? We could then, for instance, speak of the indications for aeroporotomy without specifying by which method it was to be accomplished, just as we can speak of amputation and afterward determine whether it shall be a circular, a flap, a Teale, or some other amputation, and at what point it shall be made.

And now pray turn your thoughts for a moment to one of the "&c's" of my title, under which I wish to say a few



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words upon the effects which antitoxin has had upon the practice of aeroporotomy.

The remark is frequently made to me, "I suppose you don't do so many intubations since antitoxin has come to town?" Now, theoretically, one would expect such an effect, but, practically, it does not seem to make much difference. Certainly, the effect of antitoxin is to limit the growth of membrane, and this in case of larvngeal diphtheria would tend to prevent stenosis. If every case of inflammation in the throat was a case of infection by the Klebs-Loeffler bacillus, and if antitoxin were used, and if it were always of good quality, and if it were used early, there might be no cases of diphtheritic croup. But there are too many if's in the way, and this ideal state of affairs and method of procedure seldom obtain. It may be that the disease is not "true" diphtheria, or it may be that no doctor is summoned until diphtheria is far advanced in the pharvnx and has invaded the larynx. Or the disease may have begun in the larynx in the insidious wav characteristic of membranous croup, and its true nature not suspected until the dyspnæa becomes dangerous. Such are the cases in which one is most frequently called to do aeroporotomy—to make some kind of an opening into the air passage.

And such cases will occur as long as diphtheria prevails. Even in these cases, if due to the Klebs-Loeffler bacillus, antitoxin brightens the prognosis—enables one to recommend operation with greater confidence of final success. So that one may, even when called late, make an aeroporotomy and inject antitoxin all at one visit, and expect to see the extension of the membrane stopped in twelve or twenty-four hours, and to see that already formed loosened from the mucous membrane in twenty-four or forty-eight hours, perhaps, so that the tube, be it intubation or tracheotomy, can be removed so much earlier than formerly; the tube removed, the patient can take food better, and thus another advantage is gained.

There is, however, occasionally a case in which antitoxin interferes with the use of operative measures in another manner entirely. For example: Being summoned to make an intubation, I hasten across the city at top



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speed and arrive just in time to find that the patient has been dead 15 minutes. I learn that he has been sick several days and suffered dyspnoa since the day before, and on inquiring why I had not been called earlier when the breathing became labored and was not relieved by steam and sedative expectorants and one emetic, am told that it was because the attending physician was making cultures, and in case it proved to be true diphtheria he is going to use antitoxin and cure him sure. This is not the only case I could cite in which attention was so centered upon antitoxin that everything else was lost sight of and the patient nearly or quite sacrificed. Such is progress backward. The new weapon should be added to our armamentarium and not lead to the entire abandonment of all the older ones. Suppose a band of savages upon a raid find a gun and some ammunition, and immediately throw away the bows and arrows, knives and spears that have often served them well; and if they meet the enemy or big game, they sit down and wait for the man with the gun. That's about the position some physicians have been in since the finding of antitoxin.

When you meet diphtheria—use antitoxin certainly but don't forget to feed and stimulate your patient-and don't forget the uses of mercury and of iron, of quinine and of hydrogen peroxide and antiseptics. And do not let him choke to death while you are making cultures or waiting for antitoxin to do its work, for want of an intubation or a tracheotomy. Yes, I said a tracheotomy, for I believe that tracheotomy has been too much forgotten ever since the advent of intubation. I have frequently done intubation with a larynx and trachea flapping full of loose membranes, when I knew that tracheotomy or laryngo-tracheotomy would have been better and safer. But intubation necessitated no cutting, and it was the latest thing out, and intubation it must be or nothing. So I took my chances and did the best I could and the patient took his chances, and did not always win. Tracheotomy is not to be altogether relegated to the realm of obsolescence. If antitoxin prevents the extension of membrane it should remove one of the objections to tracheotomy, that of the growth of membrane upon and absorption of poison in the tracheotomy wound.

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One more "&c." In handling diphtheria in families do not neglect to isolate your patient and employ disinfection in the good old way yet awhile, rather than to depend upon immunizing other members of the family with antitoxin. I cannot but believe that it is better to avoid the disease altogether than it is to introduce into the system of a person yet in health an agent so powerful, so liable to dangerous deterioration, whose dosage is not yet well settled and the use of which has, in some instances, it must be admitted, been attended with disastrous results.

Time enough to take the antitoxin when once attacked. Better retreat in good order and avoid the attack entirely.

The time will come, I hope and believe, when we will employ serum or something of the kind in immunizing against diphtheria (and other infectious diseases as well) as ordinarily and as safely as we now employ vaccination against small-pox, but that time has not quite come yet.

MALARIA, AND GERMICIDES—OLD, YET NEW.

BY H. H. SPIERS, M. D., RAVENNA, O.

To-day, as of old, the medical man who goes forth to battle with disease desires the most efficient armamentarium.

Disease is hydra-headed, and remedies are so inefficient and uncertain, that he who can wield a special weapon in the conflict frequently comes off victorious.

A victory so achieved is a victory though the remedy has long been discarded or ignored by the advanced (?) theorist.

A victory thus secured is hailed with joy by the patient and recognized by the laity.

It is the uncertainty in the action of remedies, the prolonged character of the illness, without perfect recovery, that gives to the patent medicine man his hold on the community at large. Connect this with certain duplicity on the part of the vendor, and a gullibility on the part of the patient, and we have in a nut-shell a situation as presented to-day. Whose fault?

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So much is taken for granted, so much is assumed and taught as true, no wonder even medical men have become skeptical as to results. No wonder there has arisen a host of mountebanks whose only occupation is to deceive and make gain. The remedy is simple: Education and restriction applied to all. It is to the medical profession alone we direct our remarks in calling attention to old yet new germicides.

The authorities tell us the cause of malaria is no longer a moot question; malaria, like tuberculosis, is caused by a germ. The absence or presence of the germ means the absence or presence of the disease.

A remedy found that eliminates or destroys the germ, eliminates or cures the disease. These and other like statements fall as honey-dew from the lips of the professional sage. If then a remedy be found that will break an intermittent per se—after quinia has failed—logically speaking, this remedy is a germicide. It must of necessity be so, or present standard writers are wrong.

To consider standard authority in the wrong would, of course, be begging the question. In the cases presented, the facts are clothed in my own language.

CASE I. V. C., an intelligent farmer of Edinburg, O., now past sixty years of age, gives me the following: My health and family history is good. About twenty-five years ago, I was breaking up new land for farm purposes. Contracted what is commonly known as fever and ague. Tried several home remedies without favorable result. Hired a local physician to cure for a stipulated price, half down and balance when cure is affected. Result, nil. Physician does not claim balance of fee. I read of and adopted the following: A decoction of boneset or eupatorium perfoliatum, one quart; is taken at a draught. On being asked how strong, he replies: "I ordered it made strong." It acted as an emetic at once. When the stomach became settled, I drank another quart. It seemed I should vomit up my boots. An hour or two later I drank another quart. broke the intermittent at once. Have lived on the same farm ever since and have not changed occupation. No second attack. The remedy, though severe and hard to take, proved a perfect cure."



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a. Boneset, a germicide.

CASE II. H. H., a large contractor and superintendent, formerly a resident of Portage Co., O., now of St. Louis, Mo., gives the following: "I have constructed bridges over many of the largest rivers in the United States. Have seen malaria in all its phases. Will give you my individual experience. Was constructing a trestling three miles long through a swamp in Weakly Co., Tenn. Had in my employ upwards of two hundred hands. One day in particular there were only two men and a boy available for work. All were prostrated with malaria. I contracted it. On alternate days I was around and in bed. In my case, the physicians could do nothing with it. Advised me to leave. A friend said: "Take my advice. Procure a case of champagne (144 quart bottles.) Take three bottles each day and I will guarantee a cure." I did so, taking one bottle each morning, noon and night, at meals. I was soon able to superintend my work. Its action was beneficial from the first, and I contracted no desire for liquors. Before the case was used, I was completely cured. I gave the balance not used to my friends.

b. Champagne, a germicide.

Case III. Judge D., several years before his death related the following to his physician: In the early settlement of Deerfield, O., fever and ague was prevalent. In my case the disease was obstinate. After using many prescriptions without relief, I commenced taking small doses of opium and with this alone I broke the intermittent.

c. Opium, a germicide.

CASE IV. Dr. W., one of the oldest and most esteemed physicians of N. E. Ohio, gives me the following: I have broken an intermittent with *chloride of sodium alone*. If malaria be due to a germ, I consider chloride of sodium an efficient germicide.

d. Chloride of sodium, a germicide.

Physiologists must look to their laurels.

The desire for common salt felt by the animate creation may be desire for a germicide. Efficient germicides are certainly in demand.

These four cases are given by upright, intelligent men,

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three of whom are living witnesses. It seems to the writer their testimony should be received.

A New York physician, writing on malaria, thinks it strange the U. S. P. should have so many remedies, when only two, quinia and mercury, are worthy a trial. To the writer it seems strange the list be not greater; certainly many remedies not named have proved of great merit in the treatment of the disease. A clear explanation perhaps is found in a present misconception. Writers look upon malaria as a germ disease. A germ disease should be treated with a germicide. Germicides are often found of no value whatever. Other remedies must be called into requisition to perfect a cure. In three of the cases cited, so-called germicides have been used. In each case they fail.

To conclude, if, as stated in an article on malaria, in the CLEVELAND MEDICAL GAZETTE for April, 1895, the sources of infection be multiform, and that there is a law connected with or underlying its inception, rationally speaking, there must be a law of treatment, and that with multiform remedies.

A CASE DIAGNOSED AS CANCER OF THE VAGINA WITH THE RESULT OF OVER-MEDICATION.*

BY D. S. HANSON, M. D., CLEVELAND, O.

Mrs. S., age 35 years, married, called at my office in April 1894, complaining of pain in vagina accompanied by a profuse leucorrhea. Upon examination, I found an ulcerated surface about two and one-half inches in diameter on anterior surface of vagina, the lower margin approaching within about one inch of the meatus urinarius, the surface of ulcer was irregular, nodular and somewhat elevated, having a cauliflower appearance. The history of the case was, that in September or October, 1893, she first noticed some pain, and the first discharge; at that time her youngest child was about three months old. Diagnosis: Epithelioma. The following day I called a surgeon who con-



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firmed diagnosis and pronounced the case inoperable, owing to proximity of bladder. As any severe measures would immediately involve the bladder, I concluded it best to try mild cauterization with as thorough disinfection of parts as possible by frequent irrigation. For the first, I used a mixture of Tr. Iodine and Carbolic Acid equal parts, applied every third day. For the second, Perman. Potas., Acid Oxalic aa dr.i, Aquæ, oz.iv, nx. Four drams in two quarts of warm water, three times daily. And after surface became somewhat less uneven and reduced in size, applied crushed cranberries kept in contact with diseased surface over night; used this application at two different times with no benefit. In addition to these local means used arsenic in small doses continously for several months. After a few months so little was gained that she became less regular with treatment, with the result of a gradual increase of growth or ulcer. In January 1895, she went to St. Vincent Hospital where the Gynæcological Surgeon, in charge curetted off the surface and applied actual cautery. The result was considerable relief for several weeks, when old symptoms again began to be troublesome, and frequent hæmorrhage from ulcer further reduced patient. In October, '95, the cautery was again used, and portions of tissue examined at this time, as before, showed the characteristic development of epithelioma. After this she suffered greatly with pain in the bladder, and seemed to have only a short lease of life. She complained greatly of pain in the abdomen, and liver was slightly enlarged and tender, which I thought to be due to involvement of that organ in the cancerous process. There was no marked infiltration of adjoining glands at any time. As she had received neither relief nor encouragement from any one, like every one else, she was ready and willing to try anything that held out any prospect of relief. Patent medicines and cancer cures of several kinds were used, until in November last, hearing that a certain doctor was effecting cures in that line, she called to see him. He diagnosed the disease as a simple ulcer. Advised mild measures; gave douches of goldenseal and witch-hazel in dilute solutions, small doses of arsenic and mezereum internally. Result-vagina healthy after



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two months' treatment. 'General condition steadily improved, until to-day her health is as good as at any time for years. Query: Were the four physicians that examined this case and the microscope mistaken, and the last diagnosis correct—or was an epithelial cancer so rapidly and completely cured by such simple measures? My notion is, that it was at no time a cancer, but an ulcer, irritated and kept open by over-medication, as indicated by title of report.

He that through failure, learns what he has lost, Will ne'er forget what he gained at such cost.

CUYAHOGA COUNTY MEDICAL SOCIETY.

ADDRESS OF THE RETIRING PRESIDENT, DR. H. E. HANDERSON.

April 2, 1896.

Mr. President and Gentlemen: Time-honored custom and constitutional prescription demand from the retiring president of the Cuyahoga Co. Medical Society an address "upon topics bearing on its welfare and condition, or if he prefer, on those of professional interest."

In pursuance of the duty thus enjoined, I purpose this evening to direct your attention very briefly to the condition, the prospects and to some of the duties of this society.

A hasty retrospect of our work for the past year, while by no means adapted to fill us with pride, demonstrates that the society is still capable of valuable service to its members and to the profession at large. Quite a number of interesting papers have been presented at our meetings, and the discussions arising, either in connection therewith, or of independent origin, have been both entertaining and instructive. I regret to say, however, that the average attendance upon our meetings has not been such as to stimulate and reward the highest and best exertions of readers and speakers. A meager attendance acts as a double depressant upon the work of the society. First, it discourages the best efforts of those who may be called upon to furnish the literary pabulum of the meetings; and second, this failure to employ their best efforts by our readers and speakers discourages the renewed attendance of those who may have made some sacrifice to be present. What the society eminently needs is a spirit of enthusiasm and self-sacrifice on the part of all its members, that they may labor earnestly



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together for its best and highest interests. Full meetings breed good papers and hearty and interesting discussions. It is hoped that the change of time of our meetings from afternoon to evening will exercise a good influence in increasing the attendance upon, and thus the interest of,

our monthly meetings.

It has sometimes seemed to me, too, that the society (and, indeed, the profession generally) is disposed to ignore too much in its papers and discussions what may be called the small things of medical art. The discoveries of Harvey, Jenner, Pasteur and Lister have, it is true, worked incalculable benefit to the human race. But it is not given to us all to be the heroes of a medical revolution, and it may be seriously questioned whether he who discovers or invents a trustworthy and speedy cure for sick-headache, a "bad cold," or any one of the so-called opprobria of our art, will not, on the whole, relieve a larger amount of human suffering and confer upon humanity a greater boon than even the great men whose names have been just mentioned. Few physicians, too, comparatively are ever called upon to perform a laparotomy or even a major amputation. But the common ills to which flesh is heir fall under the observation of each and every one of us, and are, I fear, too often ignored or carelessly treated, simply because they are common. Doubtless much of the prejudice against, and the cheap derision of the Faculty is ascribable to the physician's lack of sympathy for, and aimless, careless treatment of these minor infirmities. But a year or two ago, at a banquet of this society, I heard an eminent prelate of this city, and presumably a well-informed man, after eulogizing the advances of surgery within the last half century, add to his remarks the following scathing arraignment of medicine proper: "I am accustomed to say that medicine has made no progress for the last 2,000 years." Of course, this is a gross exaggeration, probably a conscious exaggeration on the part of the reverend speaker, but it undoubtedly voiced the popular idea relative to medicine and physicians. Now, as headaches and similar minor infirmities constitute by far the larger part of the every-day practice of the average physician, ill-success in the treatment of these naturally leads to a depreciation of the knowledge and skill of the profession, and, I doubt not, has contributed largely to the popular prejudice against medical men. Here then is a wide field for the activity of our younger men, who naturally cannot expect to begin their labors as specialists and experts, and they can do no better work than the study of these minor, but common and exceedingly troublesome maladies.



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A reputation for success in this field will most assuredly prove the high road to both fame and fortune.

Another field in which our society ought, in my opinion, to display more activity, is in the departments of public sanitation and medical legislation. The Cuyahoga County Medical Society, as the special representative of medical thought in this part of the State, should take advanced ground in the advocacy of all sanitary improvements and in all discussions relative to medical laws. I do not mean by

this that the society should undertake active lobbying in behalf of legislation desired, but that its voice should always be heard, and with no uncertain sound, in the forefront of the battle for progress in sanitation and medical legislation.

I think, too, we should all of us display more missionary zeal in increasing the membership of the society. As the official and representative society of the county, our creed should be broad enough and our charity deep enough to embrace every honest practitioner of medicine in Cuyahoga county. Other societies, organized chiefly for personal enjoyment or edification, may justly and reasonably demand of their members certain social and intellectual qualifications as a key to membership; but a county society should look only to the honesty and the moral character of its constituents. On the other hand, I look upon membership in his county society as the duty of every honest practitioner of medicine. Other societies he may or may not enter, according to his personal preferences, but his county society has a definite claim upon his membership and a certain moral right to his services by the very fact that he is a physician of the county.

In conclusion I wish to express to the society my thanks for the generous courtesy and respect extended to me as President of the society by all its members during the past year, and to wish for the administration of my successor in this centennial year of our city a measure of success far surpassing the record of any previous achievements of our

honored organization.

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DISCUSSION.

AMPUTATION IN DIABETIC GANGRENE.

On March 27 occurred the first quarterly meeting of the Cleveland Medical Society for 1896. By invitation of the Society, Dr. N. P. Dandridge, Dean of Faculty, and Prof. of Clinical Surgery in Miami Medical College, presented a paper. He chose for his subject "Amputation in Diabetic Gangrene." Certainly not a hackneyed topic.



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The distinguished Cincinnatian was greeted by a full house. He first related the case of a cabinet maker, aged 64, who in health weighed 250 pounds, which soon fell to 130 pounds, when attacked by diabetes. Neither hunger nor thirst were marked symptoms. Gangrene began in the toes of the left foot, and extended to the foot. There was marked arterio-sclerosis. He passed 65 oz. of sugary urine every 24 hours, but no albumen was found in the urine. He was treated with morphia and a strict diet, for twelve days, and then amputation below the knee performed with careful antiseptic precautions. The arteries were found to be exceedingly calcareous. When the wound was dressed on the fourth day after operation, the wound and the patient were doing well, and thereafter the morphia was diminished. Soon delirium came on, and after eighteen days the patient died, with symptoms of uremia. Post mortem showed general angio-sclerosis, with cirrhotic kidneys.

Another case was of a man aged 66, who passed $65\frac{1}{4}$ oz. of sugary urine every twenty-four hours. The patient was treated with morphia, in half-grain doses, with the foot in an elevated position, dressed in cold poultices. Amputation was performed above the knee. The patient rested well the following night. The arteries in the amputated leg were sclerotic, (specimens dissected out were exhibited) and the nerve sheaths were thickened. The morphia was diminished and sod. bicarb. and strych. administered; also hot air baths, as uremic symptoms supervened; but the patient died six days after operation. The lecturer referred to the relation between operative trauma and constitutional condition, citing a case of a jaundiced patient operated upon, in which the wound did perfectly well; while in the case of a boy formerly malarial, the flaps sloughed, and a recrudescence of the malarial trouble occurred. Induration of the pancreas is common in the diabetic, as are also arterio-

Treves alludes to the liability to ulcerations and gangrene in diabetic patients, as due to the impaired circulation—probably also to impaired innervation. Doubtless the low vitality of tissues of the diabetic make them an easy prey to germs. We all know their liability to boils and carbuncles. Diabetic gangrene resembles senile gangrene, but is more rapid and certain in its progress. It is found in old people, seldom if ever in the young. Formerly the text-books taught that amputation should never be done, but the later teaching is that it should be done farther up the limb, and the latest, that it should be done as early as

possible.

sclerosis and peri-neuritis.

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Death after operation seems to be more like that of uremia, and the practical guide as to the probable result is—the amount of urea in the urine.

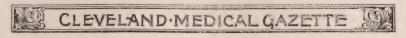
The speaker preferred morphia and strict diet to all other remedies, both before and after amputation, with hot packs for threatening uremia. The operation and subsequent dressings should be strictly antiseptic. High amputation is favored by Warren, Hoffa, Spencer, Godlee and others. Short flaps are best. Spencer had found accounts of only three cases of recovery after amputation of the leg for diabetic gangrene of the foot. The rule should be in gangrene of the sole or dorsum of the foot, to amputate at the knee or lower third of thigh, never through the leg, and the earlier the better. These rules would apply also to senile gangrene.

DR. C. B. PARKER opened the discussion. He commended the paper which accorded with the views of the best American, English and Continental surgeons at the present day. He considered the change of view due to the advent of antiseptics. He wished to add one point only to the conclusions of the writer, namely, that the general practitioner into whose hands the case of gangrene first comes should use careful antiseptic dressing from the beginning of the case. He would prefer amputation above the knee

rather than at the knee.

DR. D. P. Allen, continuing the discussion, told how few (two or three) cases of this disease had been seen by men of such large experience as Morton, Osler, Ashurst and Agnew, and queried whether diabetes was not sometimes overlooked in cases of gangrene. He cited a case in which he examined a specimen of the urine of specific gravity 1011, which unexpectedly was found to contain sugar. He had temporized by removing the gangrenous great toe and metatarsal, but afterward, the gangrene extending, had amputated through the middle third of the leg. The wound healed slowly, but finally got a perfect stump. Other cases were related. He prefers circular amputation above the knee.

DR. HAMANN quoted a German investigator, who considered it a cause additional to those mentioned, why gangrene attacks the diabetic, that their blood serum has less resistance to germs. Observers had noted that changes are always present in the tibial arteries, and often in the popliteal, and this is one reason why amputation above the knee is better. Von Bergman favors amputation in the thigh. He does not suture at once, but puts in the sutures and tightens them after a day.



Cleveland Medical Society.

The discussion was continued by Dr. G. D. Upson and and others.

In the discussion which followed the reading of Dr. Kelley's paper on "Aeroporotomy, Etc., Etc.," at the Cuyahoga County Medical Society, Dr. Tuckerman alluded to the fact that the older pathologists held that there were different kinds of diphtheria, and he cited cases in which the use of the microscope and culture tests by modern methods demonstrate that the old-fashioned clinicians were right in their opinion. We know that there are other germs besides the Klebs-Loeffler bacillus capable of producing a membranous angina, or laryngitis. He had seen the pneumococcus produce laryngeal stenosis, and had no doubt there were others yet unknown. As to the new word proposed, he thought there was a place and a use for it. American Medical Association had once or oftener attempted to maintain a committee on terminology—but after all, the adoption of a word depends upon the profession at large and upon the writers.

DR. BRASHEAR said there is, beyond doubt, a place and a use for a word having the meaning intended in "aeroporotomy." As to whether this was the best word that could be made, he was not prepared to say, without consulting some authorities. He preferred "aeroporotomy" as suggested, to "aerporotomy," not only because more euphonious, (and he did not think either of them quite euphonious), but because more correct, o being the combining letter in the Greek. He thought, however, it would be more correct, according to the rules of construction of Greek words, to change the arrangement of the first syllables into "poroaer-

otomv."

Drs. Baker, Hanson, Weber and others also participated in the discussion, in closing which Dr. Kelley said that he was not sure that the word he proposed was the very best that could be made, but that he was perfectly willing to adopt any other if somebody would propose a better. He thought it was perhaps as good a word as many another that passed current and did good service daily, although perhaps not classically correct in construction. He thought the new word indicated its own meaning as well as such words as aerolite, aerological, aerobia, aerotropism, aerography, aerodiaphanometer, aerotherapy, aerophore, and many other words.

Dr. Woodward showed a very good specimen of vermiform appendix which had become perforated after the manner of its kind.

Dr. House exhibited a dermoid tumor of the ovary the

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size of a small cocoanut, removed from a woman aged sixty-eight. He had found a peculiar condition in that the spleen was so much enlarged as to rest upon the tumor, a condition he had never met before nor seen mentioned in the books. A good recovery followed the operation. Dr. House exhibited also an ovarian tumor the size of an egg, which had on removal been considered sarcomatous, but which proved also upon opening to contain hair and bony material. He also showed a vesical calculus removed from a boy of seven years.

After all these cases had been discussed, Dr. Rosen-wasser read a paper upon Gonorrhæa in Women, and was followed by one on Gonorrhæa in the Male by Dr. Corlett. These excellent papers were much appreciated

and discussed by many of those present.



PHILADELPHIA, April 16, 1896.

Editor Cleveland Medical Gazette:

Dear Doctor:—Already, it seems to me, the practical value of the Roentgen rays in surgery has been assured by aiding and permitting diagnosis. This was well illustrated in a case recently under my care, of pistol-shot wound of the forearm, in which the ball entered about an inch below the inner condyle of the humerus. The arm was a very muscular one, the track of the ball could not be ascertained, and it was impossible to determine the position of the ball. About three weeks later, Professor Goodspeed, at the University of Pennsylvania, located the missile by the new method, four and a quarter inches from where it entered. The ball was imbedded in the shaft of the radius, and its position was plainly shown by the skiagraph and the operation for its removal, which was easily accomplished, was based upon the information thus obtained.

There are other surgical conditions, which I have found in my experience to offer a favorable field for the X-rays. In the malady now commonly recognized as metatarsalgia, which I originally described many years ago; here the anatomical relations of the metatarsal bones to one another and the fact of their impinging upon the nerves of the sole



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of the foot, which has been supposed to be the cause of the neuralgia, may perhaps, be studied to advantage by the method. Only recently I have had an opportunity of subjecting such a case to this test, and it may be that some further information as to the cause of the painful malady will be thus discovered.

So far, it would seem that the discovery will solve many uncertainties in surgical diagnosis and offer valuable aid to operative treatment. This will be the case in fractures, especially those about the lower end of the radius, elbow and ankle. In localizing foreign bodies, also, in the early stage of many superficial and deep bony growths and tumors containing bone it will be useful, and finally, in aggravated equino-varus, the existence of a displaced astragalus would at once indicate the treatment.

Very truly yours,

THOMAS G. MORTON.



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CHANGES FOR ADVERTISEMENTS, or addresses, must reach us not later than the fifteenth day of the month, preceding issue to be corrected in the current number.



A BRIEF DESCRIPTION OF THE NEW LAKE-SIDE HOSPITAL.

The new Lakeside Hospital occupies a plot of ground 400 feet long by 370 or 380 feet deep. Built as it is, on a bluff of land just east of the present site of the old hospital, its position guarantees all the advantages of the lake breezes, together with an unrivaled outlook which can never be obstructed. The erection of the new hospital has



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been the outgrowth of necessity, as the old building, in which many patients have been looked after for about fifty years, belongs to the U.S. Government service and is no longer available for use as a general hospital.

The architect, Mr. George W. Smith, has been assisted in the development of the plans by the trustees and the staff of the hospital.

In order that no modern improvements might be omitted in the construction, the trustees have spent no little time and trouble in visiting many of the best known modern hospitals in this country, and have thus been able to adopt what have been proved to be the best points of each, with such modifications as would seem to ensure still further improvements.

It is expected that the hospital will be ready for the reception of patients by December of the present year, and every effort will be made in order to have the several departments fully equipped and in running order by that time.

The system of ventilating and heating will be such that the outside air on entering the building will be passed over coils of steam pipes and will then be forced, by means of an electric fan, through flues and registers into the separate These registers are to be placed near the head of each bed at a height of about a foot from the floor. In this way the pure heated air will be rapidly diffused throughout the room. The impure air as it forms will gradually sink to the floor, and, after being drawn out by means of powerful suction through other registers and flues, will be conducted to a vent shaft by which it will ascend to a very considerable height before being released. To supplement this arrangement the ceilings of each ward will be provided with ventilators which will allow the escape of the superheated air whenever necessary. Long experience has taught that it is a most difficult thing to ensure with an even temperature a condition of perfect atmospheric purity in a hospital ward, but it is to be hoped that in the Lakeside Hospital this problem has been successfully solved by previding that both the admission of the warm air and the escape of superheated air can be regulated automatically.



For this purpose it is proposed to employ two electrical devices, to each of which a thermometer is attached. Thus, whenever the temperature falls below the minimum standard, the first of these is called into play and opens automatically certain valves through which a sufficient amount of warm fresh air is admitted, while, on the other hand, whenever the maximum standard temperature is reached, the second immediately opens the escape valves, which close again as soon as the temperature is sufficiently reduced. In this way all marked changes in temperature which are so dangerous even to the strong, but more especially to the sick, will be avoided.

The angles that generally obtain in the corners of floors and ceilings in hospital wards are conspicuous by their absence, and are everywhere replaced by rounded curved surfaces, thus doing away with one of the most efficient factors in the accumulation of dirt. The furniture, doors and window frames will be simple in construction, and without mouldings or other irregular outlines in which dust might gather.

A reference to the diagram will enable one to appreciate at a glance the arrangement of the group of buildings. The central situation of the administration building is in every respect most desirable, inasmuch as it will enable the superintendent and the different members of the hospital staff to keep readily in touch with all parts of the institution, and will thus be productive of great saving, both in time and trouble. On either side of the administration buildings are found those for the charity hospital wards. Each of these comprises two stories, with a ward on each floor containing twenty-four beds. There are to be two male wards, one medical and the other surgical; the wards for women are for medical, surgical and gynæcological cases.

On the other side of a large corridor are situated the private wards, and on consideration of their relation to the other parts of the buildings one can hardly fail to be impressed with their economical as well as with their convenient arrangement. It is hardly too much to say that there exists no other hospital that will admit of the care of

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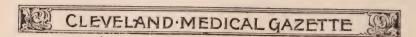
so many private patients with such complete comfort as will be possible in the Lakeside wards with so small a staff of workers as will be needed to carry out the work efficiently. Of the advisability for the existence of such wards it is hardly necessary to speak at length. They are found in the best hospitals, and experience has shown that they are now recognized as an indispensable part of such institutions. In these days of much traveling, when so many strangers are always to be found in any large city, it is the greatest boon that any one of them, in case of serious sickness, can find a place where upon the payment of a small sum he can receive the best treatment and nursing. Many people also who would not be willing to be the recipients of charity, but who can ill afford the great expense incident to a long sickness at home, would be glad to enter a private ward. More especially would this be true in those cases in which a serious operation, with all its attendant expenses, is necessary. It is also undoubtedly true that in difficult surgical cases better results are obtainable in a wellequipped hospital.

It is, however, just that such wards, while conferring a great benefit upon many people, should be not only self-supporting, but should also be made to add a considerable revenue, which would aid not a little in meeting the current expenses of the institution.

The children's ward is at the southeast corner of the group, just in front of the nurses' home. Such a ward is absolutely necessary in every well-equipped hospital, as it is for all reasons inadvisable to place children in the same ward with adult patients.

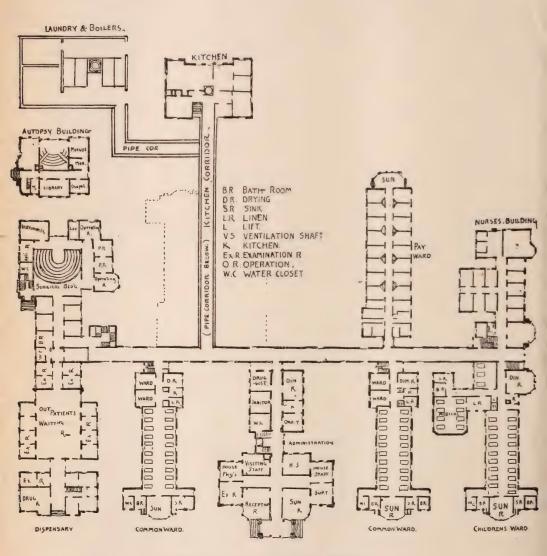
The other buildings which belong to the group consist of the dispensary with the amphitheatre and apothecary shop, the pathological laboratory, and the kitchen and laundry.

The dispensary is so situated that the out-door patients will in no way come in contact with those of the hospital proper, and thus much confusion, which would otherwise occur, will be easily avoided. On entering, the patients are ushered into a large central assembly room, in which they await their turn to enter the smaller separate rooms which are arranged around it for the different services.



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GROUND PLAN OF LAKESIDE HOSPITAL.

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In the construction and arrangement of the amphitheatre the most modern plans have been followed; it has a large sky-light, and the fittings will be such as to facilitate the carrying out of a thoroughly aseptic surgical technique. Connected with the amphitheatre are three private operating rooms, an instrument room and certain other rooms which can be utilized in various ways in connection with this department of the hospital.

The corridors, which consist of two stories, allow of access to all parts of the building without the necessity of going out of doors, and through them the meals for the patients are conveyed from the kitchen to the several wards in heated metal cases, thus escaping exposure to the outer air. The basement floor of these corridors serve for the reception of the various steam, water, drainage and other pipes which can thus be kept under constant observation, this arrangement affording great facilities for the detection and for the repair of any breaks, or the removal of any obstruction which might possibly occur in them. The upper story will be kept well warmed in winter, and be liberally supplied with windows which can be kept open in pleasant weather.

Attached to each ward there is a commodious and cheery sun room in which the convalescent patients can sit and overlook the lake outstretched below.

The school for nurses will be an active part of the organization of the hospital, and practical nursing, based upon scientific principles, will be taught. It has been found that these training schools not only turn out competent nurses, but at the same time ensures for the patients far better attention than could be obtained under any other arrangement.

The free wards are to be reserved primarily for the accommodation of the poor of the city and the community who are suffering from some acute disease, or from some condition in which an operation is indicated, and for accident cases. Chronic cases are, as a rule, to be admitted only temporarily for the purpose of clearing up the diagnosis, and kept only long enough that a definite treatment may be outlined and to allow of provision being made for the reception of the patient elsewhere. In order to ensure these privileges to patients living in the city and in the immediate vicinity, it



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will probably be found advisable to make a small charge of from three to six dollars a week to applicants received from outside of the city or county; if this were not done the hospital might always be crowded with comparative strangers who would take the places which belong to needy citizens.

In all the various departments the Lakeside Hospital has certainly laid a good foundation in its admirable buildings. The only notable omission and one which it is hoped in a short time may be supplied is to be found in the absence of a ward for obstetric service which is always an important branch in the general hospital.

The Hospital will be closely connected with the Medical Department of the Western Reserve University and the staff is to be composed of the members of this faculty. Provisions have been made for a medical, surgical and a gynæcological service, and it is expected that the outdoor clinic of the Western Reserve Medical College will be transferred to the dispensary department of the Lakeside Hospital.

It is also intended to provide for the accommodation in the private wards of patients who are under the care of physicians residing in the city. By such an arrangement the latter will be enabled to retain full charge of their cases, and at the same time procure for them all the advantages of hospital treatment.

In the construction and in the administration of every hospital the first thought should be for the immediate comfort and well-being of the patients. At the same time it must not be forgotten that the work of such an institution is not for to-day only and that due regard should be paid to its possibilities from a scientific and medical standpoint. At the present day it is required of a new hospital not only by physicians but by all intelligent members of the laity that, while sufficiently conservative, it should be somewhat in advance of existing institutions and should serve as an object lesson not only to the city in which it is situated but also to the world at large.

It is not too much to expect of this new Lakeside Hospital that in its administration, its teaching, and its practical as well as its scientific medical results will meet these



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requirements and that it will rank with the best in the country. In the present day there is no room for a poor hospital and none should exist which does not take a prominent part in the progress of medicine and surgery. When we consider the benefits to humanity not only to this but to future generations which are to be derived from a well regulated and progressive hospital, and when we consider again to what a great extent the reputation of any great city depends upon the way in which it takes care of its sick it will hardly be necessary to recommend to the citizens of Cleveland a hospital worthy of their most liberal support. If we are to possess another hospital let it be one well worth the name and "a monument more enduring than those of brass."

H. R.

OHIO STATE BOARD OF MEDICAL REGISTRATION AND EXAMINATION.

On April 20th to 23d inclusive, a representative of the Board, Dr. Frank Winders Secretary, was located at the Hollenden hotel in Cleveland, and did a "land office business" for four days. On the first day one hundred and eighteen diplomas were inspected and stamped. On the second day two hundred and thirty-one. On the third and fourth days the number reached respectively two hundred and twenty-eight and one hundred and forty-three, making in all seven hundred and twenty diplomas from this county whose merits are to be passed upon by the Board. Dr. Winders was assisted in his labors here by Drs. A. P. Ohlmacher and H. H. Baxter, of this city. Business began early, doctors young and old coming in with diplomas in rolls and diplomas in frames-diplomas of various sizes, schools and years, and both domestic and imported. noticed one from Hungary with a metallic seal the size of a Waterbury alarm clock dangling beneath it. The doctors were each laying down a five dollar bill cheerfully, though some remarked that it seemed strange, after practicing medicine and surgery for ten, twenty or thirty years, to have to



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pay to continue that privilege. Many Cleveland doctors registered who have been, as professors, signing diplomas yearly for the last decade, or even a quarter of a century or longer. and whose names are therefore upon hundreds of the diplomas registered throughout the state. In quite a number of instances diplomas have been destroyed by fire, or lost by burglary, or in some unknown manner, and the authorities of the various colleges have received requests for certificates of the former existence of the diploma. In such cases the Board requires a certificate from a college, accompanied by an affidavit from the physician, stating that he had a diploma, and in what manner it was lost. Altogether there has been such a searching through old book shelves and dusty desks as has never been seen in the state of Ohio. We would not be surprised if, in some few instances, the diploma—the diploma oft mentioned and referred to with some pride-will be found, upon resurrection and inspection, to have somehow shrunken into a certificate of attendance upon one course of lectures away back in the year 1800 and blankety.

The Board will be in session at Columbus on May 27, which is the first day of the meeting of the State Medical and State Pediatric societies, so that any who failed to register in Cleveland can do so at that time. May 28 is the lawful limit of time allowed for presenting diplomas.

THE INVESTIGATION OF THE STATE FOOD COMMISSION.

The investigation now being made into the methods and practices of the Ohio State Food Commissioner, and his assistants, has an emphatic interest for the physicians of the state.

First, perhaps, because the present commissioner is or was a physician, and, next, because some of the substances said to have been unfairly passed upon, are such as physicians rely upon in their practice. In respect to prepared or artificial foods and drugs, for which standards of



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purity, strength and methods of preparation have been established and accepted, either in laboratories or by published statements and use, the whole scientific basis of their use rests upon their being up to "the standard." To insure reliability in such substances, and, also, to prevent intentional, ignorant or harmful dishonesty, the present food and drug law of this state was enacted, and placed in the hands of an officer elected by the people who was clothed with great authority. It is, therefore, with deep humiliation and regret to all good citizens, that the testimony thus far presented and unrefuted, appears to show that the law has been misapplied, or made an ally of the evils it was intended to correct. A good law once brought into disrepute; and failing of the respect and support of an intelligent public sentiment, by reason of its bad application to facts, or from its use for ulterior purposes, may as well be repealed or amended without delay. It is to be hoped that Dr. McNeil, and his assistants and prosecutors may find some showing which will relieve them in, a measure, from their unpleasant position in this investigation, and to save the law from being lost in its purposes.

Physicians and their patrons have a right to insist upon such an intelligent and fair official inspection of food and drug supplies, as will be an absolute guarantee of their being up to recognized standards, without further tests or questions. "Prosecutions" for the sake of "revenue," or to make prominent either the officials, the law, or the offender are odious. And it is by such prosecutions that the present law and some of its officers have fallen into a bad way. The State of Ohio cannot afford to have, even its lowest courts used in such a way as to lessen respect for law, or the right enforcement of law.

G. C. A.

MEDICAL REGISTRATION IN CLEVELAND.

Dr. N. R. Coleman, of Columbus, President of the Ohio State Board of Medical Registration and Examination, together with Dr. Frank Winders, Secretary of the Board, arrived in Cleveland Sunday afternoon, April 19, and per-



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fected arrangements for receiving the applications for registration from the physicians of Cleveland and vicinity. As local assistants to the secretary in this work, Dr. Coleman chose Drs. H. H. Baxter and A. P. Ohlmacher of this city. The secretary with his assistants were located at the Hotel Hollenden, which kindly placed at the disposal of the Board one of its spacious dining halls. The registration occupied four days, during which time 720 applications for registration were received. Of this number about 100 applications were received from out-of-town physicians, including a number of applications in a batch from Canton and Ashtabula. About one-third of the whole number of applicants presented diplomas from homœopathic schools. thirty eclectics applied, and two "physio-medics." great majority of the applications were based on diplomas from recognized medical schools, only about fifty physicians applying for registration as "legal practitioners," that is, on the ten years' practice clause.

The object of these local registrations in the larger cities of the state is simply one of accommodation, as it saves the trouble and expense of sending the applications and diplomas to Columbus. The duty of Dr. Winders and his assistants was to scrutinize the applications and credentials of the physicians, and if the applications were made out in proper form they were stamped and forwarded to Columbus along with the fee for registration. Diplomas presented as a basis of registration were also stamped.

As a consequence of this registration a unique procession of doctors bearing all sorts of diplomas kept streaming into the Hollenden during these four days. Doctors came with old and new diplomas, with large and small diplomas, with foreign and domestic diplomas, with framed and unframed diplomas, and with diplomas in half a dozen languages. Some even brought their diplomas in their pockets looking as though they had been dug out of some family vault; others brought fresh-looking, ribbon-bedecked sheepskins in immense frames like the settings of a valuable oil painting, borne to the place of registration by some sweating messenger. One applicant brought the fragments of a diploma after it had been feasted upon by a mouse which

devoured the larger portion of the parchment, including, of course, the part which bore the doctor's name and the date of graduation. Several doctors brought foreign diplomas with seals as big as pancakes, contained in elaborately carved wooden boxes, and fastened to the parchment with heavy cords. One Chinese document, which its owner claimed was a diploma, was referred to the Board at Columbus for translation, as Dr. Winders and his assistants could not take time to add Chinese to the Latin, French, German, and Italian which they had already mastered in these four trying days. An elaborate hand-printed document, about as dirty as its owner, was presented on the claim that it was an affidavit from a lawyer and several laymen to the effect that its possessor once had a diploma from the Jefferson Medical College. An unsavory batch of Russian army certificates were offered as a basis of application by an equally unsavory Polish doctor, who couldn't speak a word of English. One enterprising quack wished to register on the presentation of his business card, in which he advertised to cure "cancer, fits and rupture with very little medicine." This man was even more unfortunate than the "cancer doctor" who managed somehow to resurrect a certificate of membership in some unheard of eclectic medical society.

One noticeable feature of the registration was that those practitioners whose methods of practice were at all "shady" were accompanied by their attorneys. They evidently expected to fight and came prepared for it, and some of them seemed disappointed when they passed the ordeal so easily, though they doubtless did not realize that it was but the preliminary step. A female who made "bone felons" a specialty, and who came armed with a bag full of "letters from prominent men" endorsing her "salve," was escorted by a prominent Cleveland attorney. The cancer doctor stood back in imperial dignity while a well known lawyer went through the form of presenting his application. Almost all of the questionable applicants presented the Legal Practitioner blank for registration.

As one would suspect from its intricate character and inconvenient arrangement, the blank form for application

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was evolved from the brain of a lawyer—Attorney-General Richards of Columbus. Not even a lawyer could fill out the blank properly at the first trial, and many amusing errors were found in the applications. In the blank for the school of medicine one vain eclectic wrote "common sense" school.

Upon the whole the registration passed very pleasantly, and the general feeling among the physicians seemed to be that they were taking their first step in making secure the law regulating the practice of medicine in Ohio for which they had worked so long and so hard.

A. P. O.



Insufficiency of Exploratory Puncture for Diagnosticating Simple Cysts of the Breast.

By George W. Crile, M. D.

A. Boiffin, in "Archives Povinciales de Chirurgie," reviews the difficulty of correctly determining the nature of a tumor of the breast; refers to the classical errors of Cooper, Dupuytren, Roux, Velpeau, describes the apparently pathognomonic sign of simple cyst by obtaining fluid of various colors, sometimes brown, more frequently the color of various dilutions of absinthe; points out that frequently treatment after such diagnosis by medicated injections after drawing off the fluid is followed by cure, sometimes it is inutile and occasionally dangerous. Four cases are detailed in which mistaken diagnosis were made, and in one valuable time lost. In these the tumors were removed.

The author maintains that the so called "Simple cysts" represent an error in pathology, that aside from galactocele, they are due to either a chronic mastitis or to a neoplasm-adeno-fibroma, adeno-sarcoma, or epithelioma; that in any case a free incision should be made, the nature of the tumor determined in situ, and the operation made according to indications.



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PARTIAL RESECTION OF THE STERNUM, CLAVICLE, AND FIRST RIBS FOR MALIGNANT TUMOR.

E. Doyen, in "Archives Provinciales de Chirurgie" reported a case, a male, age 37, who in 1890 had a sarcoma at the sternal notch, the tumor was removed in January 1891, again a recurring tumor the size of an orange in April 1894, at which time the sternal periosteum was resected. In September 1895 the patient again presented himself with a very large but movable tumor at the superior thoracic orifice. The tumor pressed upon the structures passing through the orifice and threatened the patient's life.

A "T" shaped incision with the horizontal line transverse, and the vertical extending down upon the sternum was made, the tumor laid bare from above by using the index finger and scissors, the clavicles exposed and resected at the junction of the middle and outer thirds, the first ribs in each side divided near its cartilage, the upper part of the sternum next separated, the left brachiocephalic vein was thereby laid bare, the pleura was carefully separated, the pulmonary excursions were in full view, the heart beats were felt strongly against the operator's fingers.

The skin was quickly sutured and the superior mediastinal space was subcutaneously tamponed. The

patient made a good recovery.

CEREBRAL SURGERY.

Doyen has recently emphasized the necessity and pointed out the safety of exposing the entire surface of the lobe in brain surgery. He makes a large flap from the occipital pretuberance to the glabella; the incision prolonged laterally in front towards the zygmatic arch, and backwards toward the external auditory canal. The bone is separated obliquely in places by means of special burrs, operated by electric motors or by the hand. This method renders exact localization unnecessary to the surgeon, it being necessary to have some indication as to the side to be operated upon. He regards this method especially applicable to epilepsy and microcephalus. The oblique points prevent pressure on the brain on replacing the osteo plastic flap.—Med. Moderne, Nov. 6, 1895.



BY L. B. TUCKERMAN, M. D.

Now and then our surgical friends seem to show a grim sort of humor giving a pleasant variety to their articles. For instance, M. CHAPUT, of Paris, has been hard at work developing an improvement on the Murphy button for intestinal anastomosis, a very simple and effective contrivance to all appearance. We shall not attempt to describe it for a verbal description were worthless unless illustrated by cuts, but Dr. A. C. Bernays1 gives a very complete description of it and fully illustrated. In his description naively he says: M. Chaput reports three cases in which his button was successfully used upon the human being. The success, or rather efficiency of the button to produce firm union was shown in two of the cases by post morten examinations." We had always been under the impression that the peculiar merit of the Murphy button was that so few opportunities relatively were offered to demonstrate its advantages by post mortem examinations. Dr. J. M. WARD, of Cornelia, Mo., 2 describes a simple and effective way of reducing dislocations of the shoulder joint. The patient is laid upon his back on the floor; the extended arm is carried up by the side of the head, and the hand given to an assistant; with one hand of the operator the scapula is fixed and drawn down, and with the other the head of the humerus is pushed into place, usually without resistance and with hardly any of that audible snap which commonly accompanies reduction. After reduction the arm is brought down to the side and supported in the usual manner. The rapid movement of the arm upward seems to take the muscles of the shoulder by surprise, so to speak, and they do not contract, it lifts, moreover, the head of the bone from its abnormal location. Dr. Ward has used this method since 1856 and since he has employed it he has met with no case where he has been obliged to use an anesthetic. There has been a good deal of discussion latterly both pro and con as to the merits of DR. WHITE's operation of double castration for enlarged prostate. While reports up to date seem to show excellent results, it must be admitted that it is somewhat difficult to secure the consent of the patient to so radical an operation. This makes the case reported by Dr. F. Tilden Brown, of New York of especial interest³ for he obtained the same result, viz: atrophy of the enlarged prostate, by merely ligating both vasa deferentia. The patient was an Irish cab-

Med. Mirror, Feb. '96.
 Med. Rec. Jan. 11, '96.

^{3.} Jour Cutaneous and Genito-Urinary Diseases Jan. '96.

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driver seventy years of age, who for nine or ten years had been troubled with frequent urination. Five years ago he had an attack of retention coming on suddenly and yielding to sitz baths, rest and catheterization, but followed by greater frequency of micturition and at times involuntary dribbling from over-distention. When young, he had had a mild attack of gonorrhea, but had never had either rheumatism, malaria or syphilis. For his second attack of retention he was treated at home for five days without improvement and then sent to the hospital. The prostate was found symmetrically enlarged to the size of a billiard ball and the bladder free from stone. Rest, catheterization, light diet and finally incising the meatus and fossa navicularis from 17F, up to 32F were wholly without avail. Three weeks after admission, under local anæsthesia with cocain, double ligatures of fine silk a quarter of an inch apart were firmly tied on each vas deferens. The vasa were not severed. The wound was closed and sealed under the usual iodoform dressing and healed by first intention. Seven days after the operation he began to pass a little water without the catheter and the amount so voided gradually increased till the use of the catheter became unnecessary except to rid the bladder of the residual urine, amounting to two or two and one-half ounces. There was no atrophy of the testicle nor apparent change in the epididymis, but there was marked shrinkage of the prostate and the patient was able to return to his calling with less inconvenience from his bladder trouble than he had felt for years. With the record of a case like this before us it would seem that the minor operation were the operation of election in cases where enlarged prostate calls for operative procedure. There is far less risk, and if it fail, the major operation can be resorted to later. Dr. S. S. HALDERMAN, of Portsmouth, Ohio, is treating ulcers of the leg with chalk ointment, prepared chalk, three parts by weight; lard, one part; and if the ulcer be very indolent, oil of tar, four minims to the ounce.) Of course he uses in addition, powerful and well adjusted compression of the whole limb—no ointment will avail with varicose ulcer without compression, but he maintains that "several capital advantages accrue from the use of this ointment. It very rarely produces pain, generally much ease and comfort. The great predominance of alkali prevents the lard from becoming rancid and so producing irritation. When the lard becomes melted by the heat of the part and absorbed by the bandage the chalk is disengaged and a portion of it combines with the secretion from the ulcer which, when united with the

^{4.} Columbus Med. Jour. Jan. 7, '96.



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chalk, is converted into a neutral, innocuous compound." Under this chalky incrustation which should be disturbed as little as possible, the ulcer heals. It would not be at all strange if indolent granulations would thrive as well on a lard and chalk diet as on a purely animal pabulum, say protoneuclein or bovinine or the like, and certainly chalk and lard can more easily be kept aseptic. We are of the impression that the Doctor is just a trifle enthusiastic when he says that this treatment "if properly applied and carried out by the physician will succeed in every case," but then a little enthusiasm once in a while does no harm and affords a good deal of diversion.

conducting a series of tests with a view of determining the relative value of the various expectorants in common use, Dr. James K. Crook, of New York City, has rendered a valuable service to the profession. At the head of the list for efficiency stands ammonium chloride given to sixty unselected cases, with complete success in twenty-five, (42%), partial success in twenty, (33%), and failure in but fifteen cases. It is of special value in the early stages of bronchitis before the appearance of exudation. Likewise in the later stages, and in phthisis, when the exudation, whether scanty or abundant, is viscid, tenacious, and difficult to dislodge. In pleuritic or reflex coughs, or in those where the expectoration is loose and free, it is of little or no benefit. Full doses, 3 to 15 grains every two, three or four hours are required to secure a good effect. Next comes apomorphia, given in twenty-two cases, with complete relief in eight, (36%), partial relief in twelve, (55%), and failure only in two cases. A decidedly stimulant expectorant of the nauseant group, its use should be limited to robust adults without cardiac disease or weakness. initial dose is $\frac{1}{24}$ grain repeated at intervals of four hours, the dose being cautiously increased, if necessary, to 10 or 10 grain. If used in solution, it should be prepared fresh as needed, for the solution rapidly changes as is shown by the development of an emerald green color. This may be retarded by adding to each ounce of the solution one or two drops of dilute hydrochloric acid, and by keeping it in a bluish or brownish colored bottle, and in the dark. of antimony ranks third. It was given in doses of from 5 to 20 drops every two, three or four hours, to twenty-four unselected cases. Eight (33%) were wholly relieved, twelve (50%) partially, and four cases not at all. It is specially useful in irritative cough, but its treacherous and toxic character contra-indicates its long continued use.



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Phenacetin is fourth. This drug, not commonly employed as an expectorant, was tested in thirty unselected cases of bronchial and pulmonary coughs. Entire relief followed in eight, (27%), some improvement in twenty, (67%), while failure resulted in the other two cases. Its best effects were seen in that class of cases where the frequency of the cough is out of all proportion to the amount of expectoration irritable coughs. The dose given was from 1 to 3 grains with 10 grains of pulverized sugar every two, three or four hours. It acts exceedingly well in combination with licorice and codein. Of the forty unselected cases in which ammonium carbonate was given, only ten (25%) experienced complete relief, and of the remainder, half were partially relieved and the other half not at all. While the result in these cases raised a doubt whether the drug really promotes to any appreciable extent the secretion of the bronchopulmonary mucous membrane, it is nevertheless a powerful cardiac and respiratory stimulant, and is of unquestioned value in the teasing, distressing cough of pulmonary congestion due to mitral disease, in the weak and fruitless coughs of senile bronchitis, in the suffocative catarrh of infancy, in bronchiectasis attended with dyspnæa; in short, in cases attended by weak heart and over-taxed bronchial power from any cause. From 3 to 10 grains must be given at a dose. Sixth in order comes creasote. It was tried in thirty cases-all of phthisis or suspected phthisis. It was given in pill form, I grain to each pill, beginning with one pill before and one after each meal and increasing till in some cases the dose was pushed to sixty-four pills a day. It was not until fifteen or twenty pills a day were given that favorable effects would begin to appear, but tolerance could only be established by beginning with the smaller dose. In large doses, it possesses the power of diminishing the amount of expectoration, improving the character and lessening the frequency of the cough. Six cases (20%) were wholly relieved, and all the rest were appreciably benefited. Ipecac, and the opiates likewise, wholly relieve about 20% and afford marked improvement in upwards of 60% more. For an all-round nauseant expectorant for unselected cases, ipecac is probably the most reliable and least objectionable drug that we have. Next comes a group which, for the lack of a better term, we may call auxiliary expectorants. While curative in only a small proportion of cases, they afford amelioration in a very large proportion. We will simply name these in the order of their efficiency. Licorice and codeine were palliative in every case. Terebene and tolu, curative in about 10% of the cases, palliative in



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65%. Hydrocyanic acid, palliative in 75%. Ammonium bromide, in 67%. Chloroform, curative in 17% of mild bronchial coughs, palliative in 50%. Squill, palliative in 50% of unselected cases. Hoffman's anodyne, palliative in 50% of cases of bronchitis accompanied by asthma. emphysema or cardiac palpitation. Potassium iodide and wild cherry, palliative in about 40% of unselected cases: and, last of all, potassium bromide and terpin hydrate, whose apparent effect was so near nil as to exclude them from the list of remedies altogether. It is a matter of common knowledge among the profession that combinations of expectorants, like combinations of cardiac stimulants, work better than single drugs; but tests like the above that serve to fix the relative value of the single drugs, form the only scientific basis for intelligent combination. It is to be hoped that Dr. Crook will extend these tests so as to include lobelia, sanguinaria, picrate of ammonia and the like.



Materia Medica and Therapeutics. A Practical Treatise with Especial Reference to the Clinical Application of Drugs. By John V. Shoemaker, A. M., M. D., LL. D., Professor of Materia Medica, Pharmacology, Therapeutics, and Clinical Medicine, and Clinical Professor of Diseases of the Skin in the Medico-Chirurgical College of Philadelphia; Physician to the Medico-Chirurgical Hospital, Philadelphia, etc., etc. Third Edition, Thoroughly Revised. Reset with New Type and Printed from New Electrotype Plates. Royal Octavo, Pages ix. 1108. Extra Cloth, \$5.00 net; Sheep, \$5.75 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry Street.

The previous editions of this work are so well known as to need no encomium. In the present edition (the third since 1889) the two volumes of former editions have been combined into one. Many new preparations have been added, among them being tolysal, tolypyrin, salocoll, salacetol, chlorphenol, bromphenol, ethylen diamine, silver phosphate, tropacocaine, formaldehyde and formalin, dulcin, taningen, etc. New applications of the older remedies have also been made and much new matter written concerning acetanilid, antipyrin, creosote, hydrogen, dioxide, salophen, trional, dermatol, etc., etc. Treatment by the animal extracts, secretions or juices, immunized serum, antitoxines has been brought up to date. No student or physician will begrudge the money paid for this book.



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An Atlas of the Normal and Pathological Nervous Systems.

Together with a sketch of the anatomy, pathology and therapy of the same. By Dr. Christfried Jakob. With an introduction by Prof. Dr. Ad. v. Strumpell. Translated and edited by Joseph Collins, M.D. Published by Wm. Wood & Co., New York, 1896.

We took occasion to review the first volume of Wood's Hand Medical Atlas, the volume on Ophthalmology and Ophthalmoscopic Diagnosis, in our last number. The Atlas on the Normal and Pathological Nervous Systems is fully equal to the former, and is not less valuable to the oculist who wishes to make more of his profession than that of a mere spectacle peddler. We can not recommend this work any higher than does Prof. Dr. Ad. v. Strumple—who says: "I wish heartily for this work, which the author and publisher have spared no pains to make really good and useful, the success which it deserves."



The Ohio State Medical Society will hold its annual convention May 27, 28 and 29 in Columbus. Its sessions will be held in the State House. It is probable that diplomas can be registered by presenting them in person to the Secretary, Board of Registration and Examination, at this time. A practical surgical demonstration of the X-Rays will be one of the features of the program. Special rates are made by hotels and railroads. A partial list of papers is appended:

R. Harvey Reed, M. D., Columbus, "A Review of the

Results of the Author's Method of Anchoring the Kidney;" John A. Thompson, M. D., Cincinnati, "Acute Purulent Inflammation of the Middle Ear;" Thomas W. Jackson, M. D., Akron, "Extensive Skull Fracture with Unusual Symptoms, Operation, Recovery;" William Thomas Corlett, M. D., Cleveland, "The Present Status of Vegetable Parasitic Diseases of the Skin;" N. Stone Scott, M. D., Cleveland, "Seminal Vesiculitis;" E. C. Brush, M. D.,

lett, M. D., Cleveland, "The Present Status of Vegetable Parasitic Diseases of the Skin;" N. Stone Scott, M. D., Cleveland, "Seminal Vesiculitis;" E. C. Brush, M. D., Zanesville, "Typhoid Fever;" Max Thorner, M. D., Cincinnati, "Serious Complications of Suppuration of the Middle Ear;" J. S. Haldeman, M. D., Zanesville, "Contagion and Diagnosis of Scarlet Fever;" W. H. Humiston, M. D.,

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Cleveland, "A Method of Preventing Thirst after Celiotomy with the Study of the Urine;" C. R. Holmes, M. D., Cincinnati, "The Accessory Cavities and Their Relation to the Eye;" J. F. Baldwin, M. D., Columbus, "The Technique of Abdominal Supra-Vaginal Hysterectomy;" J. C. Oliver, M. D., Cincinnati, "The Radical Cure of Inguinal Hernia;" S. S. Halderman, M. D., Portsmouth, "Antitoxine in the Treatment of Diphtheria;" H. D. Hinckley, M. D., Cincinnati, "Conservative Pathology;" M. Rosenwasser, M. D., Cleveland, "Phlegmasia Alba Dolens Following Lapar-otomy;" Jas. T. Whitaker, M. D., Cincinnati, "Some Points in the Treatment of Tuberculosis of the Lungs;" Hunter Robb, M. D., Cleveland, "On the Causes and Mechanism of Retroflexion and Retroversion Uterus;" J. E. Fackler, M. D., Versailles, "The Treatment of Diphtheria;" B. L. Millikin, M. D., Cleveland, "Some of the Accidents of Cataract Operations;" C. A. L. Reed, M. D., Cincinnati, "The Conservative Tendency in Abdominal and Pelvic Surgery;" W. A. Mellick, M. D., Zanesville, "Lachrymal Obstruction;" W. J. Gillette, M. D., Toledo, "Perforating Ulcer of the Stomach;" A. B. Richardson, M. D., Columbus, "Influence of Heredity;" S. S. Thorn, M. D., Toledo, "Four Cases Representing Periods in the Evolution of the Treatment of Hip-Joint Dislocation;" William Thomas Corlett, M. D., Cleveland, "Modern Status of Specific of Urethritis with Its Treatment;" Geo. W. Crile, M. D., Cleveland, "Research Into the Technique of Laryngeal Operation, with Report of Four Successful Total Extirpations;" John P. Sawyer, M. D., Cleveland, "Some Observations of Malarial Organisms in Close Connection with Typhoid Fever;" H. B. Gibbon, M. D., Tiffin, "Rational Medicine;" Joseph Ranschoff, M. D., Cincinnati, "Surgery of Tubercular Lesions."

President, Dan Millikin, M. D., Hamilton; Secretary,

Thomas Hubbard, M. D., Toledo.

Committee of Arrangements: Chairman, J. F. Baldwin, M. D., Columbus; E. B. Fullerton, M. D., Columbus; R. Harvey Reed, M. D., Columbus; C. O. Probst, M. D., Columbus; Sterling Wilcox, M. D., Columbus.

The Cuyahoga Co. Medical Society held its annual meeting on April 2. The election of officers resulted as follows: Pres., Dr. O. B. Campbell; First Vice-Pres., Dr. G. C. Russell; Second Vice-Pres., Dr. W. C. Weber; Censors, Drs. B. L. Millikin, J. Perrier and F. K. Smith.

DR. A. R. BAKER moved that a committee be appointed to draft a set of resolutions protesting against changes being made in the superintendency of the State Hospitals for the



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Insane for political reasons. This motion was carried, and the committee appointed was Drs. A. R. Baker, C. W.

Smith and J. H. Lowman.

DR. L. B. TUCKERMAN reported cases of a peculiar mild continued fever of an intermittent type with a pulse of 48 to 54 that has been quite prevalent. DR. C. W. SMITH also had seen several cases of this kind at hotels.

The address of the retiring President, Dr. Handerson,

appears on page 394.

The committee on program reported the following for the meeting to be held May 7: Paper, Dr. F. A. Payne; Paper, Dr. P. H. Sawyer; Report on Progress in Dermatology, Dr. W. T. Corlett, and an inaugural address by the President-elect Dr. O. B. Campbell on "The Ideal in Medicine."

At the Meeting of the Cleveland Medical Society, held April 24, Dr. Crile reported a case of oblique fracture of the radius which necessitated an open operation for its reduction. It was one of the cases skiagraphed by Dr. Miller and exhibited to the society. Even when freely exposed it had been found impossible to bring the fractured ends in proper apposition without cutting off the overlapping ends of the fragments which had accordingly been done. When placed in apposition they had been found to impinge so firmly that wiring, or other means for securing, had not been needed. The reporter drew attention to the difficulty encountered in oblique fractures of the radius when the obliquity extended from above downward and inward; also to the point that upon operation a green stitch fracture of the radius two inches above the oblique fracture had been found, although the Ræntgen photograph neither in the negative nor in the print had shown it.

DR. STRAIGHT exhibited a case of epithelioma of the tonsil in a middle-aged man. It had been seen by another physician during last February and referred to Dr. Straight in March, since which time observation had marked a rapid and steady growth. The lymphatics were slightly involved, which had come on during the past two weeks. The disease is rare, but few having been reported. Only two are now known to exist in Cleveland and vicinity. The weight of authority seems to be against operation, as recurrence is invariable, and it is not settled whether life is even pro-

longed or the patient made more comfortable.

Injection for Gonorrhoea.—A one per cent. solution of creosote in decoction of hamamelis combined with boric acid is said to destroy the gonococi in two hours.



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We solicit news items and personal notes of interest from all parts of the country for this department; yet if a doctor gets a new sign at his office or a new baby at his house and we fail to mention it, he should not be offended thereby. Our failing to hear of it or to find room to insert it is not to be taken as a denial of the fact of its occurrence.

Annual Report of the City Hospital Staff.—The fifth annual report of the secretary of the medical staff of the City Hospital, Dr. S. W. Kelley, has at length passed to the hands of the city printers. It shows that 861 patients have been cared for during the year, and when one considers the class of patients, the variety of the ailments and the distance at which the hospital is situated, the work of caring for them can be better appreciated; 4,563 prescriptions were written and filled, and then refilled 15,881 times; 260 operations were performed and 7,795 dressings made. Merely as single steps in the diagnosis, 1,474 chemical analyses, 241 microscopical examinations and 225 bacteriological cultures were made. Anæsthetics were administered 96 times. Records of each step of the work are systematically kept, and histories of 624 cases have been written out. The number of prescriptions and dressings is given from actual accounting and not from an estimate. For more than the first half of the year the laboratory was very incomplete, even lacking a microscope, else the laboratory work would have made a still better showing than it does.

Sixty-eight autopsies were made, and additional micro-

scopical mounts to the number of 424.

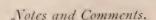
A portion of the report consists of tables showing age, sex, occupation and nationality of patients, classified lists of diseases and casualties, number and variety of operations

and results of treatment, etc., etc.

The citizens of Cleveland have no occasion to be ashamed of the work done at the City Hospital, and no appropriation of public money is put to better use than that which goes to the maintenance of this institution. Certainly the work of the medical staff is all performed without compensation, and nothing is asked excepting proper equipment and facilities with which to work.

Dr. Paul Opperman has accepted a position as surgeon to a Mining Company operating near the city of Mexico, and departed for the scene of his labors.

The Cleveland General Hospital is going to add a wing, which will increase the number of private rooms, and also afford commodious quarters for the nurses in the training school.



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Dr. Stotter of 620 Lorain St. is making preparations to spend a few months abroad.

"The Cleveland Medical Gazette.—The editorial management of this excellent journal has passed into the hands of Dr. S. W. Kelley, who for a long time has pulled the laboring oar in the Gazette's progress, and who has done much to maintain the standard of excellence to which the Gazette has attained. Now that he has the tiller as well as the oar, we have every reason to believe that the Gazette will improve in proportion to the added responsibility of its new editor. The Gazette has our best wishes for the future as it has had our hearty co-operation in the past."—New York Medical Journal.

The Passing of the Quack Doctor.—Mr. R. D. Layton, agent of the Allegheny County Medical Society, in an interesting interview with a Pittsburg Leader reporter, relates some of his experiences in ridding the city of Pittsburg of

quacks. He says:-

The day of the quack doctor is numbered in these United States. One by one the different states are passing stringent laws so that the public may cease to be bled by this worst of all frauds. It seems strange that legislation is needed in a land of intelligent people to prevent its citizens from being thus victimized; and yet, as everyone knows, such is the case. So long as the quack is permitted to continue in a community will he find patients in numbers, no matter how miraculous may be his pretensions to cure disease.

Pennsylvania now has a stringent law against this class, the enforcement of which means that the quack must either

stand prosecution or get out of the state.

Mr. R. D. Layton, ex-immigrant inspector, is the agent of the Allegheny County Medical Society and also of the State Medical Society, his business being to enforce the law of 1893, which provides for the licensing of all physicians who may practice in this commonwealth. The law of 1880 permitted physicians who were regular graduates of colleges to practice within the state, and also those who could swear to ten years' previous practice without graduation or previous preparation.

"This law," said Mr. Layton, when speaking of his experiences with the quack, "was for the benefit of many physicians who had spent two years at medical colleges and then had practiced, becoming so busy that they could not get back to college for the third year. But while this law was intended for the benefit of these men, by means of it a

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great many quacks were licensed to practice and are now protected by law. Many were arrant charlatans and adventurers, lauding their own excellences, resorting to all kinds of tricks, and yet many of them were unable to read or write. This law was never enforced further than registration in the prothonotary's office. Quacks still advertised and flourished. Physicians were diffident about taking action against them because the people always attributed any action of this kind on the part of a physician to jealousy.

"It is to get after this class of people that the law of 1893 was passed. Physicians who come to Pennsylvania from other states must pass a thorough written examination before being permitted to practice in our state. This law is fast raising the standard of knowledge in the medical pro-

fession, both of drugs and surgery.

"My experience with the quack?

"As I have known him, he is both serious and comic; voluble and silent—usually voluble; brazen and timid. One singular fact, the greatest proportion of quacks seem to come from the German element.

"There are to-day but two or three quacks of any repute whatever in Allegheny county, yet one year ago there were 48 quacks having business in the county.

"Some with 'institutes,' some with offices in buildings,

and some with offices on the curbstones.

"There is a strange similarity in the tales they tell. The quack, in order to impress his patient, usually tells the latter that he is a graduate of two or three medical colleges.

"When I call upon them as a patient, each one invariably declares he is a dead sure shot, and can cure every ill

under the sun; his remedies are infallible.

"After I have talked a little while and handed him my card, asking if he has made the necessary legal preparation to practice, he lessens his claims regarding his ability to cure in every instance, gets down to one or two diseases and finally admits he is a dead shot in cases of kidney trouble only. And he assures me that he don't give anything that will hurt anyone. That is his plea for mercy, so that I will not prosecute him for what he has done in the past.

"One blood renovator man declared, when cornered, that he simply gave one quart of hop tea as a prescription, and that would not hurt anyone, he affirmed. He said he

brewed fresh tea every day.

"Of course, it is the intention of the medical society to permit these people to stop practicing without prosecution; if they cease after being notified that is all that is required



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of them. All but three vanished quietly in the last year. Only one suit has been entered so far and one is now pending. On finding the climate of Pennsylvania does not suit them, these people go over to Ohio or to Indiana, where the

laws are less stringent.

"Yes, I have some amusing experiences. On one occasion I called on a Mrs. Doctor living out Butler street. A scrub woman admitted me and I found some five or six women waiting in the little room. When my turn came I went into the private room of her august majesty and complained of the usual pain under my shoulder blade, general prostration and shortness of breath. She declared that she had a bottle of stuff that was an infallible cure for that particular complaint, and referred me to half a dozen other people once afflicted precisely like me, whom she had cured.

"After having bought and paid for her medicine, in order to secure her, and prove that she was prescribing and selling her stuff, I disclosed my identity. She straightway fell over in a swoon.

"No, I did not pick her up. I knew she would come around all right. She speedily aroused with all her wits about her, too, and declared that hop tea was the only medicine she ever gave and that would not hurt any one.

"She said she made the tea on a Friday in certain phases of the moon and prayed all the time she was brewing it. She attributed its great efficacy to her prayer and the power of God, and she sold it at 75 cents a bottle. You were to take it after meals and return at once when the bottle was emptied.

"It was a woman who did that.

"I called on a noted German physician whose practice extended from McKeesport to Pittsburg. I felt badly, was dull, listless, had no energy and had a sharp pain in my head.

"I know what's the matter, you've got it on the kidney," said the gentleman. I said I wanted to get it off the kidney."

"All right. I'll fix you up," he answered confidentially. "Then he got down a book and wrote me a prescription from it. The book was Dr. Chase's receipt book. He simply wrote all his prescriptions from it. Well, the full price of a prescription was \$1.50, but as I only had it on one kidney, I got him to split the prescription, and told him I would doctor the other kidney some other day. He went to the drug store with me, and the clerks admitted him behind the counter. After I had been given my medicine I handed both him and the clerks my card.

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"Dr. John said, 'Vell, vell,' He was fairly caught and came to the conclusion that Kansas would be a more congenial clime. He is there now with Dr. Chase's book,

doctoring the public at 75 cents a kidney.

"I interviewed a nerve specialist on Penn avenue a few days ago who is a sure shot. He treated me for nervousness, his entire outfit consisting of two ordinary \$5 batter-With those he was prepared to tackle that which baffled the skill of our most learned physicians. I dispensed with his services."

"What class of people patronize the quacks?"

"All classes of people. The very first families of the county and Western Pennsylvania never feel satisfied until they have taken a nip from the bottle of these old necromancers and quacks. They would not tell it for the world, though. Of course they always go back to their own physician again after seeing that they are not being benefited. The pills these quacks give are largely bread; the liquids largely hops. The sum total of the cost of their 'medicines' to them is not two cents a day.

"The quack, whether man or woman, seems to be the personification of a good horse trader. They will look you squarely in the eye and lie to you without a quiver. More women than men flock to these people for treatment; more than 90 per cent. of their patients are women; the fair sex, being more superstitious than men,

accounts for this, I think.

"The medical profession is also aiming in a quiet way to suppress all advertising of remedies purporting to be for special diseases of women. There are two laws governing this advertising, one a state, the other a Federal law. Both are very severe, and have very severe penalties attached to This law governs the newspapers as well as the advertiser. I have had no trouble in enforcing it in Pittsburg, a simple notification to each of the newspapers being all that was necessary."

Dr. Hunter McGuire writes from Richmond under date of April 20: "I looked very carefully over the Gazette's account of the X Rays experiments made in Cleveland, and must congratulate you upon your great success. I think they are among the best I have ever seen."

The Gazette's illustrated account of Prof. D. C. Miller's lecture on the X Rays has been widely and favorably noticed. Under "Correspondence" will be found an interesting letter from Dr. Thomas G. Morton, of Philadelphia, on some of the applications of the new discovery.

Notes and Comments.

A number of Cleveland Physicians will attend the meeting of the Ohio State Pediatric Society to be held in Columbus on May 27, and a few of them are on the program for papers. Dr. D. S. Hanson's subject is the "Treatment of Pneumonia in Childhood." Dr. J. Perrier's, "The Causes, Symptoms and Treatment of Catarrh of the Stomach and Duodenum in Infancy." An address, the subject of which is not yet announced, is expected from the president Dr. S. W. Kelley. Dr. B. Merrill Ricketts of Cincinnati will present a paper on "Club Feet in Infancy and Treatment," and Prof. Dunham of Columbus, one upon "Summer Diet for Infants." Dr. H. Hendrixson's paper will be entitled, "The Milk Laboratory and its Effect." The secretary Dr. Geo. M. Clouse of Columbus promises to issue the entire program in the near future.

The Season of Medical Meetings is upon us, and in addition to the local societies, probably more of the interest of the profession of Ohio centers in the American Medical Association which is to meet in Atlanta, Ga., on the 5th and 8th of May, and the Ohio State Medical Society which convenes in Columbus on May 27th to 29th.

Chicago as a Medical Center.—It was but a year ago, when St. Louis had the reputation of having more medical professors to the square mile, than the South had Colonels. To-day Chicago bears that great honor, for in a recent canvass of the medical population of the Windy City, it was found that one out of every six physicians, has the privilege of adding professor to his name. Think of it, one out of every six, and how many colleges? Did some one say thirteen? They have two "sun-down" medical schools up there too, the lectures being delivered after six o'clock in the evening, so that men and women employed during the day may become medical students at night. Well, as there are so few physicians in Illinois, especially in Chicago, it is no doubt a good thing to introduce some such plan to keep up "the quota." Push it along. Chicago needs a few more colleges to give the few remaining or unemployed physicians, a chance to get another handle to their names.

It is related that at a medical meeting recently held in that city, at one of the hotels, a bell boy who was sent to notify a professor that he was wanted at the telephone, put his head in the door, and innocently called out: "Professor, you are wanted at the telephone," when low and behold! the whole audience rose as one man and started for the door. The boy fainted. Yea, verily, Chicago is a medical center.—Medical Fortnightly (St. Louis).

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majority.

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Notes and Comments.

How Big Are We?—An article in a recent English magazine upon "The Measurement of a Man," has some very interesting facts worthy of preservation. They were collected by the "British Association." The average Scotchman is 5 ft., $8\frac{5}{8}$ in. high; the average Irishman, 5 ft., $7\frac{7}{8}$ in.; the average Englishman, 5 ft., $7\frac{1}{2}$ in.; the average Welshman, 5 ft., $6\frac{5}{8}$ in. The British professional class, according to the bulk of the statistics, average 5 ft., 9 in., and are the tallest men in the world, except some of the South Sea Islanders. About 10,000 persons were examined at the Health Exhibition; the tallest man was 6 ft., $7\frac{1}{2}$ in.; the tallest woman, 5 ft., $10\frac{3}{8}$ in.; the heaviest man was 22 stone; the heaviest woman, 15 stone, 12 lbs. Yet it was

A Bacteriological Aspect of Street Sprinkling.—Now that the bicyclist is active in his crusade against the dirty and senseless practice of street sprinkling in our city—a crusade with which every cleanly citizen who uses our street must be in sympathy—it may be interesting to point out another hygienic objection to the nuisance.

remarkable how level were the dimensions of the vast

The dust of our dirty streets is dangerous on account of the disease producing bacteria which it contains. Two factors favor the multiplication of bacteria—heat and moisture. The summer days furnish the heat and our enterprising street sprinklers furnish the moisture necessary to the flourishing reproduction of the dangerous bacteria which find their way into the dirt of our pavements, from the excreta of animals, from the expectoration of diseased human beings, and from the droppings of the filthy garbage wagon as it parades along our finest streets. A. P. O.

The Commencement Exercises of the Medical College of Western Reserve University will occur Wednesday, May 20. As usual, there will be a meeting of the Alumni Association in the afternoon in the college building, and an address and banquet in the evening. The address this year is to be by President Pierce of Kenyon College at the Y. M. C. A. Hall and the banquet following at the Stillman.

Dr. W. T. Corlett has been elected a member of the Dermatological Society of Great Britain and Ireland.

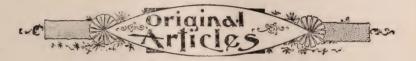
Dr. Louis Starr writes, "The April number of the Cleveland Medical Gazette reached me a few days ago. I was much interested in the account of the X Rays experiments. It is difficult to estimate the value of the discovery to both surgery and medicine; it will probably be very much greater than we can at present imagine."





Respectfully Scott





THE DEVELOPMENT OF THE TEST CARD.*

BY DR. FREDERICK K. SMITH, CLEVELAND, O.

With the earliest attempts at systematic examination of the conditions of eyes and of vision in considerable numbers of individuals, the necessity arose for some method of determining the acuity of vision and of recording and comparing the results of various examinations. The reading of printed matter creating the one most commonly existing demand for acute vision, and a variety of sizes and styles of type, calling for varying degrees of acuity, being used in printing, it naturally befell that use was made of them for the purpose of testing. At first, every one making a test used whatever he had at hand, each one, in stating results, usually employing the printer's term for the size of type to be designated. As the sizes and styles of type used in different places did not always correspond, even when known by the same name, confusion would almost unavoidably occur in attempting to compare observations of different men.

This was the existing state of the subject when Edward Jaeger, (Vienna, 1818-1884), made and published (1854) a

*Read before the Throat, Ear and Eye Section of the Cuyahoga County Medical Society, Feb. 7, 1896.



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collection of type used in various languages, arranged according to size, the different sizes being numbered consecutively. This collection of type, being adapted for use in various countries among those speaking the different languages, was known as "type of universal reference," and its use soon became widely extended. It allowed the comparison of results obtained by different men as well as comparison of tests in any one man's work. There being, however, no uniform relation between the varying styles and sizes and no accepted standard of visual acuity, means were still lacking for accurate measurement of vision, or for more than an approximate comparison of different records. The fact that the German, Greek, Hebrew and Roman characters required different degrees of visual power to distinguish them, even when of the same size, impaired the value of comparisons between the results obtained among the different peoples. The value of the Jaeger type for use among English speaking people, was still further lessened by the publication in England and in this country of imitations in which the sizes and shapes of letters of the original were not preserved, although published under Jaeger's name. The fact that for the English tests in the original charts, an unfortunate text had been chosen, an inferior specimen of the language, tended to prevent their extended use, and the imperfect imitations were used instead.

With the appreciation of the advantages of comparison afforded by the Jaeger type, the next demand was for more accurate determination and comparison and the establishment of a uniform standard for acuity of visual power. It is for this next step, a long stride indeed, that we are indebted to Hermann Snellen (Utrecht, b. 1834).

The least angle of distinct vision for any eye is the least visual angle at which two visible points may be distinguished as separate. The determination of the least angle of distinct vision as about one minute is accredited to Volkmann (Alfred Wilhelm von Volkmann, anatomist and physiologist, (1801-1877). An object having the degree of complexity of a letter must, however, subtend an angle of about five minutes in order that its form and parts may be distinguished.



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Snellen based his test on this observation, making use of separate capital letters, arranged in rows. Each letter had hight and breadth equal, the same throughout any one row, but varying in regular gradation from small to large in the different rows. Each row was designated by a number indicating the number of feet at which the hight of each letter in the row would subtend an angle of five minutes at the eye, the same number indicating also the greatest distance at which the letters of the row could be distinguished by the average normal eye.

He further assumed that variations in visual acuity may be properly measured by the determination of variations in the least angle of distinct vision and that the value to be ascribed should be inversely proportional to the size of the angle; i. e., directly proportional to the greatest distance at which any one test object may be distinguished, or inversely proportional to the lineal dimensions of the smallest objects of a series of like shape seen at a fixed distance. That is, the acuity of vision in any case may be expressed by a fraction having as its numerator, the greatest distance at which an object may be seen and for a denominator, the distance at which the same object may be seen by the average normal eye.

The value of Snellen's gift to ophthalmology is attested by the fact that these principles, (1) acuteness of vision is properly measured by the inverse of the least angle of distinct vision, and (2) the normal least angle of distinct vision is about one minute, incorporated by Snellen in his test charts, form the basis of all subsequent charts, the variations from Snellen being of different degrees and in various directions.

I shall not attempt a description of all test-charts published, which would be an unprofitable task, but simply wish to call attention to some few which seem to mark distinct steps in the evolution and perfection of details in the application of the principles just enumerated. The contributions of various men may be briefly mentioned, and their work subjected to a somewhat analytical comparison.

Snellen's charts were first published in 1862. These earliest charts did not conform completely to the principles

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enunciated, as, while the height and breadth of the letters corresponded in the main to the five minute angle, the width of vertical strokes was one-fourth and the horizontal one-eighth that of the letter, and the sizes up to 3, inclusive, were printed from metallic types and not especially cut to standard shape. Later, the thickness of all lines was made uniformly one-fifth that of the letter. The edition of 1864 contained extra tables of "test dots" previously used by Longmore in the British army. The edition of 1875 was based on the metric system and adapted for use at a distance of six metres.

Ferdinand Monoyer (Strasbourg and Paris) adopted a scale of tests indicating at a fixed distance the various degrees of visual acuity expressed in tenths, doing away with the cumbrous common fraction and substituting the simple decimal. The decimal designation of values is a natural outgrowth of the adoption of the decimal system in other relations and has doubtless occurred to many independently, and, indeed, the suggestion has been published at various times, but Monoyer seems to have been the earliest.

John Green (St. Louis) published in 1867 his criticism of the intervals in the scale of Snellen and proposed a series in which the members indicated more nearly equal differences in acuity of vision. In 1869 he elaborated still further the arrangement of his series by proposing a geometrical progression and choosing as the ratio between the dimensions of contiguous members $\sqrt[8]{0.5}=0.795$. He also discarded some of the letters used by Snellen, as not fulfilling the requisite conditions.

M. Burchardt (Berlin) published in 1869 his "Internationale Sehproben," containing a series of figures made up of black disks on a white ground, the sizes of the disks varying down to minute dots. He found that disks of 0.1 mm. diameter placed in a line with intervals of 0.1 mm. were perceived at a distance of 60 cm. as a distinct line, at 20 cm. as a rough line, and at 16 cm. were recognized separately, and on this basis he made the disks of his tables of a diameter equal to 1-1600th the distance at which they were expected to be recognized by the normal eye, and the



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intervals the same width. He was opposed to the use of letters for several reasons: Persons reading much are more expert than others in distinguishing letters. Some letters are more easily recognizable than others and the appearance of some letters is materially affected by astigmatism.

Charles A. Oliver, (Philadelphia), published a chart in 1885 with letters accurately and carefully formed on Snellen's principles, selecting the few letters which best fulfilled the requirements. It was adapted for use at five metres, the sizes of letters corresponding to distances from $2\frac{1}{2}$ to 50 metres, with intervals of $2\frac{1}{2}$ and 5 metres.

Guillery, in 1891, advocated the use of dots of such a size that the diameter subtended an angle of 50 seconds at the greatest distance at which they were expected to be seen. The different sizes were related as 1, 2, 3, etc., and vision denoted by the fractions $\frac{1}{4}$, $\frac{1}{3}$, etc.

Many other charts have been published, some of which involve no principle different from those already mentioned, and others of which I have no detailed information. Some have been made by forming standard letters into words and sentences for special purposes, such as testing the vision of school children, soldiers and other special classes of persons, and others by forming variously shaped figures conforming to the accepted standard of shape and size for testing illiterates and children.

A comparison of the charts already briefly mentioned may best be made by taking up the essential features separately and looking at the development with respect to each. In the analysis of a test chart, we may consider four essential points, arranged in the order of their importance, as follows:

- 1. The angle adopted as indicating normal visual acuity.
 - 2. Shape of test objects.
 - 3. Gradation of sizes of objects.
 - 4. Distance at which the chart is to be used.

The standard adopted by Snellen as the normal least angle of distinct vision has been accepted by nearly all others. The few variations that have been made either one way or the other are not of sufficient amount to be



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considered as modifications of the principle. These variations have been based on different considerations. Burchardt determined by experiment the ratio between the diameter of disks and the greatest distance at which they could be distinguished, which is shown by calculation to be equivalent to an angle of about 65 seconds. Guillery adopts 50 seconds as the standard, which may have been based on the observation of Helmholz in one case, where parallel wires were distinguished when separated by a distance equivalent to that angle.

There seems to be no good reason to abandon the usual standard. The fact that, in eyes apparently normal in every respect, variations occur which are greater in amount than the variations in the different standards proposed indicates the impossibility of determining an absolute natural standard. The earliest confirmation of Snellen's standard was the investigation of Dr. J. Vroesom de Haan, of Utrecht, a pupil of Donders, who in 1862 determined the visual acuity of 281 persons by the use of xx Snellen. The average varied with the age from ½ at 10 years, to ½ at 41 years, and thence down to ½ at 80 years. The individual results in some cases varied even more widely from the average. Various observers since that time have obtained similar results, so that the substantial accuracy of the accepted value is not questioned.

As test objects, letters have been accepted by nearly all, but with differences. Jaeger took the printer's letters as he found them, while Snellen and his followers conformed their letters to the standard shape as described. Snellen's first charts employed the plain Gothic forms, but these have been largely superseded by the Roman, which can be made better to fulfill the requirements. Snellen used nearly all the alphabet without discrimination. Green, in his chart, discards a number of letters, choosing for use C, D, E, F, G, H, I, J, L, O, P, Q, T, U, fourteen in all, but recognizes the fact that not all of these are equally well distinguished. Oliver carries the selection still further, using only seven letters, C, D, E, F, L, O, T, of which four are made up of horizontal and vertical lines, and three have curved lines with radii at all angles. This may be considered to bring



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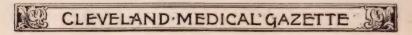
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the selection of letters to its lowest terms for practical use in a test chart, although Landolt has recently proposed to use simply the Snellen standard 50 metre O and C, by observing the greatest distance at which they can be distinguished.

Still greater accuracy than can ordinarily be secured with letters was sought by Burchardt and others by the use of circles or disks. Prof. Longmore had previously used disks in the British army, but rather with the idea of reaching illiterate cases than of securing increased accuracy. It seems probable that any greater accuracy which may result from using objects other than letters would be more than offset by the greater facility with which the patient may tell what he sees by naming the letters, so that the letter remains as our most available test object for ordinary purposes.

In the gradation of sizes in making up a series of tests for his chart, Snellen chose arbitrarily such sizes as he deemed would form a practical series, corresponding to the distances in feet, 200, 100, 70, 50, 40, 30, 20, etc., so that differences in degrees of vision indicated by differences in contiguous rows of letters were about the same with the larger and the smaller type. Monoyer arranged the sizes to indicate differences in visual power which could be expressed in tenths, when used at the standard distance. By this arrangement, the ratio between the dimensions of letters in contiguous rows approaches unity in going from the larger to the smaller. That is, smaller differences in visual power could be indicated in eyes approximately normal than in more defective cases; e.g., the difference (expressed by ratio) between two cases showing V=0.9 and V=1.0 would be much less than between two with V = 0.1 and V = 0.2.

Dr. Green's plan gave a uniform ratio throughout the series, with intervals not greatly different from the average of Snellen. The ratio which he chose, $1^3/0.5 = 0.795$, practically equivalent to 0.8, offers a happy solution of the problem of combining accuracy with a fairly simple series of expressions of value. Drs. Oliver and Guillery, as well as some others, arrange the series so that the distances to



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which the sizes correspond increase by equal additions, and the further the vision is below normal, the closer are the distinctions that may be made. Oliver, however, interpolates one row of small letters which lessens the discrepancy.

A comparison of these four methods of arranging a series of sizes, giving the gradation of visual acuity indicated by the different lines of each chart when used at the prescribed distance, is shown in the following

COMPARATIVE TABLE OF VALUES.

SNELLEN.	MONOYER.	GREEN.	OLIVER.
$\frac{20}{200} = 0.1$	0.1	$\frac{20}{200} = 0.1$	$\delta_{1} = 0.1$ $\delta_{2} = 0.11$
		$\frac{2.0}{1.6.0} = 0.125$	$\frac{1}{40} = 0.125$
		$\frac{2.0}{12.6} = 0.16$	$\frac{5}{35} = 0.143$ $\frac{5}{30} = 0.167$
$\frac{20}{100} = 0.2$	0.2	$\frac{20}{100} = 0.2$	$\frac{5}{25} = 0.2$
$\frac{20}{70} = 0.29$	0.0	$\frac{20}{80} = 0.25$	$\frac{5}{20} = 0.25$
	0.3	$\frac{20}{64} = 0.32$	$\frac{5}{15} = 0.33$
$\frac{20}{50} = 0.4$	0.4	$\frac{20}{50} = 0.4$	
$\frac{20}{40} = 0.5$	0.5	$\frac{20}{40} = 0.5$	$\frac{5}{10} = 0.5$
$\frac{20}{30} = 0.67$	0.6	$\frac{20}{32} = 0.63$	$\frac{5}{7\frac{1}{6}} = 0.67$
	0.7 0.8	$\frac{20}{25} = 0.8$	• / 2
	0.9	20 10	5 1.0
$\frac{20}{20} = 1.0$	1.0	$\frac{20}{20} = 1.0$	$\frac{5}{5} = 1.0$

The equal ratios of Green are indicated by the equal spacing in the column under his name, while the varying spaces of the other columns show the departures from equality in the other systems, the contrast between Monoyer's and Oliver's scales being especially marked. Inspection of the charts themselves, side by side, would show the contrast equally well, in the preponderance of small letters in the former and of large in the latter.

TEST CHART,

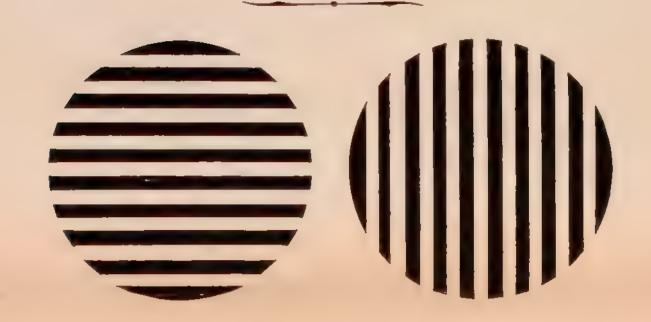
BY

DR. FREDERICK K. SMITH,

FOR USE AT A DISTANCE OF 4 METERS.

4 M 13 FT 15 IN 5

FROM THE CLEVELAND MEDICAL GAZETTE JUNE, 1896



V-0.1



V-0.125

0

V-0.16

E C L

V-0.2

DETTO

V-0.25

LDEC

DFTO

V-0,25

LDEC

V-0.32

OTCF

V-0.4

FLDE

V-0.5

DCOT

V-0.6

ELFC

V-0.7

OTDL

V-0.8

TFCE

V-0.9

LDEO

V-1.

FOCTL

V-1.25

CLEDF



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The question as to which plan is best may be differently answered, according to the standpoint taken; Green's arrangement appears more in accordance with scientific method, as the ratio of probable error would be the same in the use of any part of the chart. Monoyer's table, on the other hand, offers the advantage of the simplest possible notation. It affords, also, the means for a closer determination of degrees of visual power approximating the normal, just where close distinctions are most useful.

Estimation of the relative value of these different methods of spacing rests largely on the fact of the use or non-use of decimals. The propriety of their use should be apparent. When written decimally, values may be compared directly, whatever the arrangement of the chart or the distance at which it may be used. When common fractions are used, this may be done only at the expense of more or less calculation, if the distance used and the distances indicated on the chart are not the same for each case. Values are also more easily written and read in the decimal notation, provided the value corresponding to each line is properly indicated on the chart.

The distance at which test type may be used depends upon various considerations. With the Jaeger type, accuracy in quantitative estimation of vision could be secured only by using the same type at varying distances. With the Snellen type and others based on the same principles, measurements may be made by observing distances with any one size of type, or by comparing sizes at a fixed distance, or by a combination of the two methods. The use of a fixed distance has, however, been found to be usually the most satisfactory plan. The distance at first chosen was 20 feet, which was considered as equivalent to infinite distance, the rays entering the eye from an object at that distance being so nearly parallel that the angle was neglected. With the adoption of the metric system, the distance of six metres was chosen, somewhat less than 20 feet. Later DeWecker. and, following him in this country, Oliver made use of a five metre distance. Even this distance I believe to be lessened in practice by many, from the exigencies of office space or other reasons. Nevertheless, whatever the distance used,



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it has been usually assumed to be, for practical purposes, equivalent to infinite distance. There is, however, an appreciable divergence of rays reaching the eye from the distances mentioned, equivalent to that produced by a one-sixth or one-fifth dioptre lens. With a growing tendency towards accuracy in all medical matters, it would seem appropriate to take this difference into account.

Trial cases are now fitted with lenses showing a difference of \$\frac{1}{2}\$th dioptre, and these distinctions appear to be coming more and more into use, with the cylindrical lenses especially, but also in the use of the spherical to some extent. The difference of \$\frac{1}{2}\$th dioptre is, however, more than balanced by the variation due to the distance ordinarily employed, and any claims to accuracy, arising from the employment of such weak lenses are vitiated, unless an exact correction is made for the distance. Lenses of \$\frac{1}{2}\$th dioptre are seldom made, so that accurate correction cannot ordinarily be applied.

For the purpose of securing the highest possible degree of accuracy, I would propose the adoption of 4 metres as a uniform distance, with the allowance, in all cases, of 0.25 D. as an exact correction for the divergence at that distance. It may be thought that so great accuracy in this respect is useless, so long as other elements of the problem are subject to variation, but accuracy in a part of the elements will certainly tend toward greater accuracy in final results, and it will certainly be advisable to employ means to that end, especially when, as in this case, such a course offers no obstacles, and accuracy is as easy to secure as the opposite.

If a longer distance be deemed preferable, it may be made 8 metres, in which case 0.125 D. should be allowed for exact correction. The fact that so long a space would not ordinarily be available and, further, that examinations where the greatest possible accuracy is desired are usually made under a mydriatic, in which case the short distance could not disturb the result by inducing accommodation, indicate the propriety of the 4 metre distance.

The practical side of the developmental study of the test chart is the solution of the question as to what course future development will take toward improvement, or, in FACKLER: The Treatment of Diphtheria.

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other words, what form of chart will prove fittest to survive the test of extended use. My own attempt to answer this question would be made by uniting in one chart such details of form as have appeared best to fulfill the demand with respect to each of the essential features already mentioned. Such a chart would be made up of the letters selected by Oliver, the sizes based on the 5 minute angle and arranged for use at 4 metres. Assuming the simple decimal designation of values as preferable, at the same time keeping in mind the desirability of preserving uniformity of gradation as far as possible, I would combine Monover's scale of sizes for the smaller letters with Green's for the larger, thus indicating the values 1.0, 0.9, 0.8, 0.7, 0.6, 0.5, 0.4, 0.32, 0.25, 0.2, 0.16, 0.125, and 0.1. One or two rows of still smaller letters might be added, to indicate degrees of vision above the normal. With this scale, the ratio of the intervals would remain uniform down to the size indicating V-0.5 and from that point would approach unity in going toward the line indicating normal The hight of letters indicating V=0.1 in a 4. M. chart would be 58.2 mm. From this the remaining sizes may be readily computed.

I have not attempted to say anything in regard to the position to which the test card is entitled among the means used by the oculist for investigation of the condition of vision and refraction. Although in some uses formerly made of it, other means may have partially superseded the chart, it still has a place of a good deal of importance. Whatever other method may be pursued, the test type usually constitute the court of last resort, and the plan and construction of the chart deserve careful consideration in order to insure the truest verdict.

THE TREATMENT OF DIPHTHERIA.*

BY J. E. FACKLER, M. D., VERSAILLES, O.

Inasmuch as the general history, etiology, pathology and diagnosis of diphtheria are matters of record to which all have access, and having nothing new to add to any of

FACKLER: The Treatment of Diphtheria.

these departments of the study of this malady, I will say as little in reference to these as is consistent with an intelligent and practical presentation of a plan of treatment that has been found most efficacious as compared with all others that have become matters of record and subjects of comparison.

The recognition of this disease by the physician is seldom attended with any unusual difficulty. Ordinarily, the chemical analysis of the fluids of the body or the microscopical examination of the bacteriological elements is not required, but by simple inspection the diagnosis may be made with as much certainty as that of typhoid fever, pneumonia, malarial fever, and many other diseases.

This is not intended to disparage the great value of the work of the bacteriologist, but in cases where the symptoms presented by the patient are insufficient, the aid of bacteriological examination is thankfully accepted.

That the primary reasons for the presentation of this paper may become more apparent, let us consider for a few moments some of the more characteristic and striking features in the clinical history of this affection.

It is essentially a disease of childhood, however, not limited to this period of life except so far as mortality is concerned. In many instances it exhibits a rate of mortality that is most appalling; in some epidemics, almost all have died.

In the Willard Parker Hospital at New York, as reported by A. Campbell White, M. D., in the *Medical Review* of Nov. 11, 1894, the average rate of mortality for the two preceding years, of children between the ages of five and sixteen years was 17.8 per cent., and of children under five years of age, 42.7 per cent., making a total average of all ages of 30.25 per cent.

The average mortality of all classes in the Kaiser und Kaiserin Friedrich-Kinderkrankenhaus at Berlin for the last five years preceding the introduction of the antitoxin treatment, as reported by Prof. Baginsky was 40.25 per cent. The reports of numerous other observers, both in this country and in Europe, indicate a mortality ranging from 25 per cent. to 80 per cent. So that the general average of deaths in children of all ages as indicated is about 40 per cent.



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Since the introduction of the antitoxin treatment the mortality has been reduced about one-half.

Prof. Von Widerhofer of Vienna reports a mortality under the serum treatment of 23.7 per cent.

Baginsky of Berlin reports a mortality of 13 per cent. Dr. O. Heabner, Professor of Pediatrics in the University of Berlin in summarizing the reports from all sources where the antitoxin treatment was used shows the average mortality to be 20 per cent.

The treatment exhibiting so high a rate of moratlity in any disease of this period in life will not remain unchal lenged by an intelligent and progressive profession.

Mere clinical statistics, however, are of no more value only so far as they serve as an expression of the experience of the physician. The impressions the intelligent physician receives at the bed side are of far more weigh in determining the efficacy of a remedy, or in estimating the relative value of any system or plan of treatment than the most accurate and reliable statistic can afford.

That the treatment indicated in diphtheria should be antiseptic, germicidal and tonic is a well established fact, and universally admitted.

Many remedies of this class, nevertheless, have proved unsatisfactory, and but few have maintained a prominent position for any great length of time in the treatment of this disease.

Among the latter, however, may be named potassium chlorate, tincture muriate of iron, hydrochloric acid, turpentine, phenic acid and pinna canadensis. The first three of these preparations have for many years held a conspicuous position in the armamentarium of the practitioner, and still continue to be extensively used.

In a somewhat extended and exhaustive paper read before this society by Dr, J. S. Halderman of Zanesville, O. and published in the transactions of 1894, the preference of remedies in the treatment of diphtheria seems to be given to a combination of quinine, chloride of iron, sulphuric acid, chloride of sodium and glycerine, for which very satisfactory effects are claimed.

In a paper read before the North Carolina State



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Medical Society by Dr. R. A. Patterson, and published in the *Medical Review*, St. Louis, Sept. 9th, 1893, are reported a series of 30 cases treated with a combination of potassium chlorate, dilute muriatic acid, tinct. muriate of iron and water, with most satisfactory results:

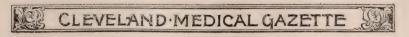
All recovered.

From observation and some years of personal experience in the treatment of this malady, I am convinced that the efficient germicide and antiseptic; the true specific, or antidote for the toxic principle of diphtheria, is found in these remedies.

Early in the history of my experience in the practice of medicine I was much impressed with the favorable results obtained from the use of a preparation of chlorine in the treatment of certain zymotic diseases, notably, typhoid fever. Reasoning from analogy, the use of it was extended to the treatment of diphtheria; and for more than a quarter of a century the "chlorine treatment" has proved uniformly successful, not only in my own experience but likewise in the hands of neighboring physicians who have made use of the remedy. Not a case under this treatment having proved fatal in all this time. Believing that good results are dependent upon the careful preparation and proper manipulation of the remedy and that successful treatment is obtained not only from the selection of the proper remedy, but by its prompt and judicious use, the various steps in its preparation and administration will be given with sufficient minuteness for all practical purposes.

The remedy is prepared as follows: Take a four ounce bottle, rinsed and well drained; put into it about one (zi) drachm of potassium chlorate in coarse powder. Add from sixteen to twenty drops of chemically pure hydrochloric acid; apply gentle heat to the bottle until it is well filled with the gas. This part of the process should be prudently guarded, that the dangers of a possible explosion may be averted. Now pour into the bottle a small quantity of cold water, close the mouth of it and shake briskly for a few moments, add a little more water and shake as before; repeat this process until the bottle is filled.

This manipulation must not be conducted in the rays



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of the sun, and when completed the bottle must be corked and enclosed in a wrapper to exclude the light. It is now ready for use.

In the administration of this preparation no metallic spoon or vessel of any kind should be used. But take an empty glass tumbler and pour into it directly from the bottle about a teaspoonful of the Chlorine preparation and add sufficient water to it to admit of the solution being conveniently swallowed. This potion should be taken in about three hours time by the patient swallowing a small quantity every twenty or thirty minutes. That the remedy may remain in contact with the throat as much as possible nothing else should be swallowed soon after taking it.

If the secretions of the mouth be offensive the mouth should be carefully cleansed by washing out with the solution, and all necrotic tissue and detached membrane that can be removed without violence to the congested and inflamed parts should be mechanically removed, but no attempt to gargle, or to swab the throat should be made; neither should any harsh measures be instituted at any time, but the parts should, as much as possible, be maintained in a state of quiet repose.

If there be considerable fever; temperature 102° F. or more, the exhibition of Fld. Ext. Veratrum Veride one drop with Fld. Ext. Aconite one half a drop in a teaspoonful of water every hour, will, in a very short time, favorably modify the pyrexia.

In cases where there is torpidity of the bowels; congestion of the portal circulation, and want of proper action of the liver and kidneys, free action of the bowels should be obtained by the administration every two hours of Calomel \(\frac{1}{4} \) grs. and Bicarbonate of Soda 4 grs. thoroughly triturated with Sugar of Milk. During which time the use of the Chlorine must be suspended or withheld.

In a large majority of cases, however, the persistent and judicious administration of the Chlorine solution alone, is all that is necessary. Improvement in the appearance of the throat and in the general condition of the patient are almost immediate, and after the first twenty-four hours of treatment are quite marked.



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The efficiency of this remedy is not limited to diphtheria alone, but extends to all cases of a diphtheritic character; necrotic and putrid sore throat and scarlatinous angina.

How this remedy acts I am not able satisfactorily to explain; neither is it necessary. The fact that it cures is of greater moment to the physician and to the patient than everything else connected with it.

It is most probable, however, that it attacks the poisonous substance which the pathogenic bacillus is said to secrete; the toxalbumen, upon which the virulence of the disease depends, neutralizes, eliminates and renders it harmless. The chlorine solution should not be abandoned until the throat is clean and ulcers are healed.

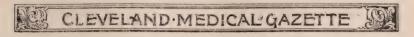
When the acute symptoms have passed and convalescence is measurably established, the tincture of the chloride of iron in small doses, dispensed in water and glycerine, will aid greatly in the restoration of the patient.

As an outward application to the throat, in severe cases, an ointment of camphor and turpentine has seemed to be most satisfactory. The dosage and treatment here given is that for a child four or five years of age. In cases of infants the chlorine solution may be converted into a syrup by the addition of sugar, and is easily administered with equally good results.

The chlorine gas should be utilized as a disinfectant of apartments and dwellings infected with diphtheria. This in rooms unoccupied may be thoroughly effected without any difficulty. But in rooms that are occupied, some degree of caution must be observed that the atmosphere does not become too irritating to the respiratory organs of the occupants.

To readily accomplish such fumigation take an ordinary dinner plate, place on it a quantity of potassium chlorate in coarse powder, pour onto it a proportionate amount of hydrochloric acid (c. p.). Moderately heat the plate if necessary, carry it about the room or set it in a convenient place while the gas is being disengaged.

From infected foci treated in this way I have never known diphtheria to be contracted or to extend to other



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members of the family with any degree of virulence. But all subsequent cases were much milder in form, more easily controlled and of comparatively short duration.

If the condition of the patient requires that the secretory and eliminative organs be aroused and brought into proper action, this should be promptly and effectively accomplished by the use of the calomel triturate as above indicated, followed if necessary by the administration of castor oil and turpentine.

The chlorine solution should be renewed; that is, made afresh every few days, as it may soon become deteriorated, especially if improperly handled.

THE IDEAL IN MEDICINE.*

BY O. B. CAMPBELL, M. D., CLEVELAND, O.

The difference between an ideal and its realization confronts us in every relation of life, but it is most apparent in those callings in which a high standard of ideals is a necessary postulate of the successful prosecution of an otherwise not too pleasant or too profitable series of duties.

Nowhere is such a high ideal standard more necessary than in the practice of medicine. Dealing as it does with the deformities, the diseases, the vices of mankind, it throws into the background the æsthetic and pleasing side of life.

The doctor enters upon his professional life, imbued with the humanitarian nature of his work, the delights of professional intercourse, the satisfaction of a useful life.

The healing of the sick is not, and never can be, a business in the true sense, for it is in the ideals and in their realization, however imperfect, that the practitioner finds the real reward for his work; but the temptations are great all about us, and there is a temptation to leave the ideal and make a business of medicine.

The opinion of the laity is that medicine is an excellent money making business, that its work is light and its reward great; judging merely by externals, this would seem to be

^{*}Inaugural Address of President Cuyahoga County Medical Society, May 7, 1896.



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so, for the public do not understand that an external show of prosperity is necessary for the smallest amount of success.

Under these circumstances, the practitioner of medicine is too liable to fall into the net of those who, unfortunately, practice the healing art for the same ends, and in a similar spirit as they would pursue a commercial enterprise.

The ideals have vanished and the realities are more naked and ugly in consequence.

To counteract such tendencies we should ever foster and encourage medical fellowship, in societies and reunions, where doctors learning to know each other better and esteem each other more, the effect of the competitive strife for patients and dollars may be ameliorated.

Gentlemen, we are not doctors because we consider it an easy way to make a living. It is, in fact, the hardest of all ways. If one considers the amount of hard work necessary to secure a medical education, the long period of probation through which the doctor must pass, the enormous responsibilities he must assume, the amount of charity work he must do, and the utterly inadequate amount of pay he receives, he will never make the mistake of supposing that the practice of medicine is in any sense a sinecure.

We are doctors because the practice of our profession is the most broadening, the most humanizing, the most elevating of human pursuits. It brings out, develops and strengthens every aspect of a man's character. True, many are found wanting and fail to stand the fiery tests by which all must be tried, but this is no reproach to medicine. The ideal in medicine is still before us.

Our work as physicians brings us into closest contact with life in all its phases. People wear a mask with the preacher, sometimes even on the death bed. The lawyer comes in contact with them usually on one side only; but what innermost recess of the human soul is there to which the doctor is not admitted? Life lies open before him like a vast book in which he never grows weary of reading, and to the end of which he never comes. Then again, what a vast intellectual interest and stimulus there is in the profession of medicine entirely apart from its practical side—that of relieving human suffering and distress. What other



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professions have such untiring workers and searchers after more truth and such writers as we may boast of? And these ideals in medicine are not nor have not been made in all cases by environment, but by the stimulus of the work.

As we look back over the triumphs achieved by medicine over disease, we are struck with the fact that some of the great conquerors in the field have been the patient, hard working men whose services have been rendered in obscure places and whose names, though worthy of enduring fame, have made but a small mark in the annals of our profession.

McDowell's first ovariotomy was one of the great battles won and lost by a sturdy laborer in the field. The ingenuity, the skill, the courage brought to bear by many of our profession in obscure places is a matter of wonder when we consider the limited means at hand, the lack of proper apparatus, of skilled assistants, of competent nurses under which they are compelled to work. We have records of tracheotomies done with a pen-knife by the dim light of an oil lamp held in the trembling hand of a terrified mother; major arteries have been ligated in a farm-yard with the assistance of a plough-man; obstetrical emergencies of a nature apt to strike terror in the hearts of the best accoucheurs have been surmounted single-handed, while the steady old nag at the door awaited his master.

What do these facts hint or declare to us? Certainly that ideal medicine covers a larger scope than mere technical knowledge in medicine, for there may be more than one way of reaching the same end, and there may be a better way than that we have been accustomed to follow.

We should always, therefore, be willing to divest ourselves of all preconceived notions, however sanctified by antiquity and hallowed by ancestral reminiscences. The more antiquated a notion or belief may be, indeed if not confirmed by present knowledge—and more especially if discredited by established principles generalized from facts—the less trustworthy and more improbable it is.

The relations of the medical man to society being more comprehensive and complicated than the relations of ordinary or lay members, their obligations are correspondingly more complex and important, both general and special.



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Their duties being to protect society from invasion by exciting causes of disease, to arrest the progress of disease and relieve the suffering from pain, a general obligation is implied, that they shall know all that is available, or within the reach of their individual capabilities and facilities to be known, by which society or the individual may be benefited medicinally or hygienically, and faithfully and skillfully apply their knowledge, and it has always been characteristic of the regular practitioner to apply such knowledge as falls within his lines diligently and conscientiously.

But the past few years, the medical profession, keeping step with the intellectual procession of the age, has advanced so rapidly, that not every student has been able to become, or to keep himself fully informed of all that is now regarded as valuable in medicine or essential to a thorough medical education; and the application in practice of special knowledge, acquired by persons limiting their studies to special fields of observation, is gaining favor daily on every hand; yet the great body of the profession consists of general practitioners, and theoretically, it is presumed that no one secures a degree of Doctor of Medicine from any reputable school who is qualified only in special fields, or whose knowledge of medicine is limited and partial.

This, in contrast with the early history of medical education, shows the rise and progress of medicine.

I read briefly from Herbert Spencer in the *Popular Science Monthly*, as follows:

RISE OF THE MEDICAL PROFESSION.

During early mediæval times the monasteries, serving as centres of instruction, gave some embodiment to the medical profession, like that which our colleges give. In Italy there later arose institutions for educating physicians, as the medical school of Salerno, in 1140. In France, before the end of the thirteenth century, the surgeons had become incorporated into a distinct college, following, in this way, the incorporated medical faculty; and while thus integrating themselves, they excluded from their class the barbers, who, forbidden to perform operations, were allowed only to dress wounds, etc. In our own country there have been successive consolidations. The barber-surgeons of London were incorporated by Edward IV., and in the fifteenth century the College of Physicians was founded, and "received power to grant licenses to practice medicine—a power which had previouly been confined to the bishops."





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Progress in definiteness of integration was shown when, in the time of Charles I., persons were forbidden to exercise surgery in London and within seven miles, until they had been examined by the company of barbers and surgeons; and also, when by the eighteenth year of George II., excluding the barbers, the Royal College of Surgeons was formed. At the same time there have grown up medical schools in various places, which prepare students for examination by these incorporated medical bodies; further integrations being implied. Hospitals, too, scattered throughout the kingdom, have become places of clinical instruction, some united to colleges and some not. Another species of integration has been achieved by medical journals, weekly and quarterly, which serve to bring into communication educational institutions, incorporated bodies, and the whole profession.—Herbert Spencer, in the Popular Science Monthly.

In conclusion, while we are proud of the influence of the ideal in medicine over all our professional career, and would urge on the spirit of progress in its grand mission of diffusing light and knowledge, we pause to recognize and deprecate the tendency to routinism, fads and fashions in medicine.

Routinism is a sort of abuse to which many will have to plead guilty.

The daily or constant use of a drug to meet a repeatedly recurring indication in numerous diseases, or because there is a certain symptom or group of symptoms, though quite proper in itself, develops a habit to take the place of thought and scrutiny, one that grows still more and more till there is danger of becoming little else than a routinist, and routinism is, though it may be said to be conservative, never energetically progressive; so far as it causes one to adhere to well tried and effective measures and remedies in ordinary cases as well as dangerous emergencies, it is to be praised; but when it inspires sentiments of self-sufficiency and keeps one out of the pathway of light and research, it is to be condemned.

As to fads and fashions in medicine, the experience of the ages seems to teach us but little.

The dreams of the philosophers and alchemists are the dreams of modern science.

In a profession that claims to base its theories and therapy upon scientific research, it is singular that fad and fashion should so frequently dominate and control its members. The pathway of medicine is strewn with the wrecks CAMPBELL: The Ideal in Medicine.

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of pet theories and remedies, discarded now, but which in their day exerted a potent influence on practice.

What were these fads and fashions? Let us enumerate some of them: The lancet, the scarificator, tartar emetic, jalap, calomel, the denial of the fevered patient when thirsting for cool water, the war against milk in fevers, the crusade against fresh air—anything, as we now look at it, to render misery more miserable.

The blue glass fad, the elixir of life fad, and these were not born of ignorant thought, but of recognized scientific ability.

They are gone and possibly a more rational treatment has taken their place. But now our own practice is subject to criticism on the same ground. Take quinine, for example; it is given in many diseases, whether indicated or not. Yet we are slowly waking to the fact that there are some diseases which quinine will not benefit and others in which it is injurious.

The typhoid patient is no longer quininized until he imagines his head is a snare drum, and his nerves wrought up to such high tension that life seems a delirium of torture.

Bergeon, with a blare of trumpets and extensive advertising, introduced his treatment to the profession for the cure of consumption.

Judgment and common sense seemed for a time to have been overcome. Reports by hundreds were published concerning its efficacy in medical journals throughout the civilized countries of the world; yet there was not a grain of common sense or rational treatment in the whole matter, but now there are throughout the country hundreds of physicians who would be glad, doubtless, to dispose of rectal tubes, gas bags and carbonic acid generators.

Of a similar nature is the expensive "pneumatic cabinet," and the apparatus for the inhalation of hot air for the purpose of destroying the tubercle bacillus, though with more regard for science, yet it is already known to be a failure.

Let us discard fashion and fad and use common sense in place.

I congratulate this, the parent society of all the medical societies in Cleveland, for what it has accomplished for the ideal in medicine, always conservative, yet progressive,



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thereby increasing the respect for the profession to which we are proud to give our allegiance.

Now, fellow members of the Cuvahoga County Medical Society, the year is before us. You have named me for your presiding officer. I am conscious of the responsibility, as well as the honor, you have conferred upon me. I have only to say I will do my best to promote the interests of this society and its members. Without laying down any special policy, I ask the hearty co-operation of every member of the society in bringing here his or her best thoughts on scientific or practical medicine from month to month, as we meet, and so work out our ideal in medicine and an ideal medical society. To this end I would agree with the retiring president, that this society should take a more active part in matters of public health. Modern medicine is probably the greatest benefactor of mankind. The dignity of a science or study rises with its ability of being utilized in the service of man.

The object of this society is, in part, the promotion of medical science and art, and that does not mean only the improvement in diagnosis and the administration of drugs and remedies, but the discovery of the best means of placing every citizen or inhabitant of Cleveland in the best possible condition and environment for health.

The peculiar relations of the individual physician to his patient or the family entrusted to his care, are widened in the relations of the profession to the public.

Great epidemics take the place of a single case, the protection of a community, that of the guarding of a person, the hygiene of the schools, that of a dwelling, the sanitation of the city, that of inspecting a suspicious trap or sewer in a private residence. The more in our health department the medical element will predominate over the political, the more actual benefit will the people derive from it.

The hygiene of the whole population, the superintendence of public buildings in which many people, old and young, are gathered, public hospitals, quarantine stations, the question of physical and mental elevation, of legal responsibility, of State care of the insane, *these* all belong to the domain of the profession and, therefore, in part to us.



A PRACTICAL CONSIDERATION OF GONOR-RHŒA IN WOMEN.*

BY MARCUS ROSENWASSER, M. D., CLEVELAND, O.

It is not my good fortune to be able to present any new revelation or original research on the topic of the evening; nor would I tire you with surgical detail of interest only to the expert. My contribution is limited to such facts as every medical man ought to know—facts which have in recent years revolutionized our ideas, transposing the disease from the list of slight, benign ailments to the list of those of serious, dangerous, tragic import. Not less than 12% of all the women who consult the specialist, exclusive of prostitutes, have gonorrhæa or its sequelæ. It is the cause of not less than 15% of all cases of puerperal fever. It is responsible for 70% of all cases of sterility in woman. It is the skeleton in many a family closet. Permit me to give it the first airing before this Society. The following is a typical case:

CASE.—In February, 1888, I was called to see a recently married woman who was then seven months pregnant. She had been suffering with pain and swelling in knee and ankle joints, and also with frequent labor-like pains. No relief from salicylates. In April she was delivered by forceps applied low in the pelvis without injury to the soft parts. In less than 24 hours after confinement, she was motionless with pelvic peritonitis, from which she recovered after months of invalidism, several abscesses having discharged through the vagina during her illness. She has not been pregnant since, and has had one recurrence of peritonitis. The baby had a mild ophthalmia. This was just after the awakening of the profession to the idea of cleanliness and asepsis in surgical and obstetrical work. The case had been managed in the up-to-date fashion. I was therefore not a little puzzled to know whence this streak of bad luck. During her convalescence, she gave these additional links in her history: Her health previous to marriage had been good. Never had had rheumatism. Had nothing but sickness since the first week after her wedding. Three months after this event, her husband's doctor had lanced a painful

^{*}Read before the Cleveland Medical Society, April 24, 1896.



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abscess about the vulva. The latter fact was confirmed by the doctor himself, as also the fact that he had treated the husband for gonorrhœa about a year before his marriage.

Cases with such sequence of symptoms emanating from a common source were recognized clinically long before bacteriology came to our aid to attach the seal of science to our conclusions. Noeggerath was supposed to have exaggerated clinical observations until Neisser, Bumm, Sanger and Wertheim verified and vindicated nearly every assertion made in the modest little pamphlet of twenty-four years ago. What are the facts as now accepted?

The statement that "a certain case of gonorrhœa might have originated from making water in the night air" is no longer tenable. The gonococcus of Neisser, in whatever diseased tissue present, is positive evidence of its gonorrhœal origin. While the germ vegetates best within epithelial tissues, provided they are delicate, soft and moist, it also proliferates within and on the peritoneum and induces inflammation in connective tissue. Dry horny layers of epithelium form an impenetrable barrier. It therefore flourishes in the vagina of young children and aged and pregnant women, but is rare in the same tissue of healthy adults. It thrives in the conjunctiva and mouth of the newborn and in the rectum of both sexes. Its presence in the urethra, the ducts of the glands of Bartholin, the vagina, the cervical canal, the uterine cavity, the tubes and on the surface of the ovaries causes inflammation of these organs. Its penetration into the lymph spaces produces broad ligament infiltration, often leading to abscess. It can by the same route reach the hilum of the ovary and cause ovarian abscess without having passed through the tube. It can enter the circulation direct and reach remote organs, thus causing gonorrheal metastasis. The locations of choice are the urethra and the vaginal portion of the cervix. person may in time become accustomed to his own brood of germs, so that they may cease giving trouble. Let them be transplanted to new soil, they at once affect the recipient with pristine vigor. Now, if these regenerated germs be returned to their original owner, they will initiate as vicious a recurrence as though they had never been there before.



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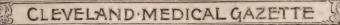


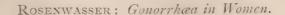
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This is the explanation of "latent" and "recurrent" gonor-rhæa. Thus, too, a man and wife may finally become indifferent to their own germs, but a third party may be infected by either. This third party may in turn reinfect husband or wife, and these again one another. Chronic gonorrhæa therefore affords no immunity against an acute attack. Infection may be propagated by other means than sexual congress in its natural or perverted forms. Towels, sheets, sponges, baths taken in common, infected instruments, contact with secretions at birth—all are known to have been carriers of infection.

In most instances of gonorrhea in women we are called at a time when the disease has already developed a pelvic inflammation. The initial evidences about the vulva may have disappeared. When seen early, a little pus can be squeezed out of the urethra, and there is a redness about the mouths of the vulvo-vaginal glands. Urethritis does not seem to be nearly as painful as in the male, unless complicated by cystitis; nor is it as tedious. The red spots in the fossa navicularis may persist and furnish a clue to the identity of the disease when other symptoms have entirely vanished. I have not found these red spots as often as one might expect from the study of Japp Sinclair's excellent monograph on this subject. Abscess of the Bartholinian glands is nearly always of gonorrheal origin. The following apparent exception proves the rule: Several years ago my friend, Dr. Allen, confided to me a rare instance of what he believed to be non-specific Bartholinian abscess in a young lady of highly respectable family. No names were mentioned. I happened to know a young lady under the doctor's care corresponding to his description; I also knew a young gentleman who had been very attentive to her. was a strange coincidence that the young man was at the same time nursing a very stubborn dose of urethritis. Thus are we occasionally the dupes of circumstance. Gonorrheal vaginitis is rare except in young girls, the aged, and when contracted during pregnancy. The vaginal mucosa, possessing tough epithelium convertible into epidermis, resists the invasion, except when constantly bathed by the discharge dripping from the cervix above. In acute vag-







initis, the mucous membrane is highly injected, swollen and tender. There is a copious vellow or greenish vellow discharge, sometimes tinged with blood. Examination causes considerable pain. In women of unclean habits the discharge causes irritation and swelling of the vulva and may infect the rectum. Not a few cases of fistula in ano and rectal stricture in both sexes have their origin in gonorrheal infection. When inflamed, the vulva is constantly smeared with a copious, sticky moco-pus of characteristic odor. A similar layer of ropy muco-pus on the cervix is a reliable clinical sign of gonorrhea, even when other landmarks are missing. The germ may long lurk in the crypts and folds of the cervical canal without ascending into the cavity of the uterus, causing a muco-serous discharge only. The introduction of a sound, or the use of cutting instruments about the parts, or any disturbance of the quiescent state may rapidly light up a peritonitis. Many a supposed puerperal sepsis may originate in this manner. The presence of the gonococcus in any of these secretions, as demonstrated by microscope and culture test, is proof positive as to the gonorrhœal origin of the inflammatory and suppurative diseases in the pelvic cavity. Specific puerperal fever is usually distinguished, from that of septic origin by later appearance, more tedious course, greater liability to recurrence and safer termination as to life.

Tubal infection is frequently followed by sterility. When not entirely closed, the tubes may be more or less crippled and may become the seat of ectopic pregnancy. Uterine Gonorrhæa is characterized by menorrhægia, dysmenorrhæa, leucorrhæa. It often causes repeated abortions, occasionally premature labor. While infection of bladder, kidneys, and rectum is common to both sexes, the frightful consequences and untold misery of pelvic peritonitis and suppuration, and of puerperal sepsis have no parallel. Indirectly ophthalmia neonatorum and the specific vaginal infection of little girls, seen especially among the filthy, can be permitted to follow in the wake of this procession of afflictions.

Like other infectious diseases, gonorrhea is self-limited, healing spontaneously in four to six weeks. In the





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chronic form the urethra is often found well without having undergone treatment Reinfection by diseased husband, or other disturbing elements lead to extension of the disease and to its chronicity. The resulting damage to infected tissues is more or less permanent. In the treatment of acute gonorrhœa, rest in bed, prevention of sexual relations, cleanliness of the vulva and other exposed parts, liberal filling of the vagina with powdered boric acid, bland diet and drink, open bowels and opiates for relief of pain would suggest themselves as sufficient. The abortive treatment by strong antiseptics or astringents, or by other violent measures is to be emphatically condemned as a refinement of aimless cruelty. The very barriers that nature provides to stay the advance of the disease are by such means destroyed without corresponding assurance of its simultaneous annihilation. Even mild douches may do more harm than good by washing germs from the vaginal entrance to the cervix where they find favorable pastures and hiding places. The large majority of cases that come to us are past the acute stage. Here local treatment is desirable. Prohibition of sexual relations is essential to early cure. Urethritis can be treated as in the male. Vulvitis, vaginitis and cervicitis yield most satisfactorily to dry wiping and thorough dusting with boracic acid about three times a week. The cervical canal is best left undisturbed for a time, unless there is evidence that the infection has gone beyond. The proposition to completely extirpate the inflamed Bartholinian gland is regarded with favor, because it being difficult to eradicate the germ in this situation, the secretion might lead to reinfection of the male, or of the patient herself. All cases of uncomplicated chronic endometritis are best treated by We no doubt curette many such for subinvolution or septic condition, not knowing that they are Many women are thus cured and would remain cured but for reinfection by the diseased husband. In pregnant women, infected at term, the additional precaution of thorough scrubbing of the vagina with soap and creolin or carbolic acid at the onset of labor is necessary; just as is done in preparation for any vaginal operation. Clinically, this necessity is recognized whenever there is a

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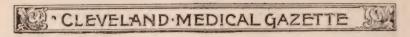
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yellow discharge, especially if acrid enough to irritate the vulva. Once the tube has become infected, the efficiency of local treatment becomes very uncertain. Curetting, by improving drainage, may cure occasionally. Early closure of the abdominal ostium is nature's first provision in miminizing the resulting danger and damage. I present a sample of her best efforts:

CASE .- Ten years ago, the mother of three children was infected by her husband. Her previous health had been good. The disease reached the peritoneum in ten days. The tubes could be felt as tender cords in the sides of the pelvis. The peritonitis was not severe. Six weeks after recovery from acute symptoms, a pear-shaped, fluctuating tumor developed and disappeared, first on one side, then on the other-double Hydrosalpinx. The fluid never emptied through the cervix, it must have gravitated into the pouch of Douglas. The germs, if any were present in this fluid, were too weak to set up a peritonitis, as the patient would recover from the rupture in a few hours. She has remained sterile. She has been so well the past five years, enjoying social pleasures and amusements, that I have had no opportunity for further examination. For details of this case, refer to Boston Medical and Surgical Journal. January 24, 1889, page 86.

A time was when the diagnosis of specific Salpingitis, or of pyo-salpinx, implied the verdict, laparotomy. We have so far recovered from this dictum of earlier days, that each case is now judged without reference to a class and is treated according to its individual indication.

Our efforts and measures for limitation and protection ought to be increased and improved in accordance with the well known character of the disease. The sanitary supervision of prostitution has hitherto failed because of crude and incomplete methods. This matter is still controversial and involves questions of morality, ethics and hygiene which we can only mention, but have neither time nor inclination to discuss. Those who are infected, men as well as women, ought to undergo proper treatment with prolonged, subsequent observation before sexual relations are resumed. Marriage ought to be prohibited in case a complete cure

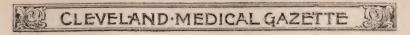


Rosenwasser: Gonorrhæa in Women.

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cannot be effected. The physician should be scrupulously careful lest he convey germs by unclean instruments or hands. He should exercise the necessary precaution at childbirth to protect the babe against maternal infection. His instructions should be explicit and rigid to protect the children against all forms of contact in event of gonorrhœa of either parent.

The herculean task of prevention rests largely on our shoulders as medical advisers. In family life, gonorrhea is usually introduced by the diseased husband, either on the nuptial night or after sexual abstinence caused by absence, sickness or parturition. The bride, wife or mother comes to us in her innocence and ignorance often too late to avert the havoc wrought. We are even obliged to keep from her the real cause of her trouble. The male is the party to look to for redress. When he is infected, it does not take long for him to find it out, nor do we keep him in ignorance when, sooner or later, he is obliged to present himself for treatment. Whether he be a young man or erring husband, the culprit is for the time our prisoner. Here is our opportunity to impress upon him the evil consequences of infection. There is no appeal as strong or as effective as that for the protection of a mother, wife or sister against disease, lifelong misery, or death itself. My friend, Dr. R. B. Hall, has so forcibly expressed similar views that I close with a free quotation. "The family physician should impart knowledge upon every legitimate occasion upon the subject of gonorrheal infection. He should instruct the parents of boys, and the young men themselves, of the great danger to the health of their future wives should they contract gonorrhœa. When we appreciate the fact of the great delicacy and hesitancy on the part of parents in talking about these subjects to their sons, we begin to realize what an enormous subject we have before us. But it is a just and righteous one, and one that is bound to be thoroughly aired by the laity in the near future. The sooner the medical profession does its plain and whole duty in the matter, the better for us all. It is within the recollection of the majority of my hearers when we, as college students, were taught that gonorrhœa amounted to but little more than a cold and



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could be cured in nine days by a little balsam of copaiba and a mild astringent wash. We need not wonder at the position the laity take on the subject. These older teachings must be revised and the laity must receive instructions through the family physician. We should teach that gonorrhœa is more destructive to woman than syphilis.

"While on this subject we must not forget the duty parents owe their daughters as well. As sure as time, when the laity become educated upon this point, the parents and guardians of young girls will be as careful to inquire after the moral and social character of their daughters' suitors as they are now wont to do about the size of their pocketbooks. The former I think the more important, both as to comfort and happiness of the girls.

"When the laity become educated upon this subject as the profession now understand it, the abdominal surgeon will make fewer sections for these preventable diseases than he is now doing, and a corresponding amount of misery and death will have been prevented."

722 Woodland Ave.

MEDICO-LEGAL SECTION OF CUYAHOGA COUNTY MEDICAL SOCIETY.

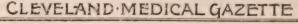
The regular monthly meeting of the Medico-Legal Society, following usual six o'clock dinner at the Forest City House, was held on May 21.

A brief inaugural address was read by the president.

A committee appointed for the purpose reported the following resolution regarding the recent death of Dr. W.

J. Scott, which was adopted by the Society:
"In view of the death of Dr. W. J. Scott, the Medico-Legal Branch of the Cuyahoga County Medical Society desires to publicly express its feeling of bereavement and loss. He was its founder, promoter, and friend, and its members each feel his death a personal loss. He was a man known throughout the country as an earnest student and exponent of the science of legal medicine. His evidence in our courts as an expert witness for over a quarter of a century has carried with it the weight of authority. When insanity was pleaded in defense of crime, he never failed to

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draw sharply the line between wickedness and madness. In malpractice cases, while extenuating nothing, and excusing no lack of proper attention and skill, he was ever ready to give his brother physicians the benefit of his wide experience and knowledge, and to assist court and jury in reaching correct conclusions. He was, in its broadest sense, a medical jurist. His death takes from this branch its most prominent member. His memory will always be tenderly cherished.

"Conway W. Noble,
"O. B. Campbell,
"H. C. Bunts,
Committee."

Owing to the illness and consequent absence of Mr. F. B. Skeels, the reading of his paper, "Race Influence in Criminality," and discussion thereof, was postponed for a future meeting. A substitute paper consisting of a report of an interesting criminal case was read and commented on by Dr. F. K. Smith. The discussion following was spirited and instructive.

[Attorney Bunts was curious to know if the lawyers in the case were as drunk as the victim and defendants! But the reticent dignity of the doctor precluded an open expression

of opinion.

On motion of Dr. Tuckerman, unanimously carried, the secretary was instructed to forward a message to Senator Sherman requesting him to urge the Senate to pass the House bill providing for the sanitary inspection of immigrants, either separately or as a supplement to the McCall bill.

Tentative to the propriety of making the scientific status of metapsychosis a theme for future attention by the society, a committee was appointed to investigate the so-called manifestations of mind reading, now being exhibited at the Opera House by the Baldwins. The committee named consisted of Judge C. W. Noble, Drs. H. J. Herrick, C. F. Dutton, and S. W. Kelley.

The topic for discussion at next meeting, third Thursday in June, was announced to be: The Credibility of Autopsies in Obscure Cases of Rapid or Sudden Death. The subject was divided and apportioned to leading speakers as follows:

The Brain—Dr. Brockett.
The Heart—Dr. A. J. Cook.
The Lungs—Dr. Tuckerman.

Mr. Howard Couse was selected to speak from the standpoint of the cross-examiner and cite opposite cases from legal reports.

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Abstract of Dr. F. K. Smith's report of case:

A case of serious injury resulting in death, leading to the trial of two men for murder. The injuries consisted of fractures of five ribs, the second to the fifth, on the right side, the broken ends penetrating the pleural cavity and slightly wounding the right lung, from which followed extensive cellular emphysema, and also pyemia with abscesses in the lower lobe of the left lung. Besides numerous scratches and cuts on the face and body, there were two V-shaped cuts of the scalp near the vertex, of remarkable similarity in size and shape, the corresponding parts being parallel, two inches apart. There were also two parallel lines of discoloration across the front and outer aspect of the right arm. Death occurred nearly five days after the time of injury.

The injured man, John Wahtola, a Finn, had been on his way home from a saloon, late at night, in company with two neighbors, all being intoxicated, Wahtola probably more than his companions. After completing more than half the journey, Wahtola was left on the road, the others going ahead and reporting the fact. While they were on their way, after leaving Wahtola, a team and wagon came up from behind, and the teamster, a German, who was on the way to his home, some twenty miles down the road, and who also was well under the influence of liquor, stopped with them at the group of houses where the Finns lived. A party went back, found Wahtola suffering from the injuries

described and took him home.

Upon regaining consciousness, Wahtola accused his companions of causing his injuries, while the men disclaimed all knowledge of them, and the injuries themselves, as above described, pointed to their production by a wagon wheel running upon, but not over him, as he lay in the road, the heel-calks of the horse's shoe inflicting the double scalp wound, with a pawing motion of the hoof, as he rolled over on his face, from under the wheel.

Owing to the positive accusation made by Wahtola and to the fact that the nature and extent of the injuries, being masked by the extensive cellular emphysema, were only fully revealed by the necropsy, which indeed was not completed until after the coroner's inquest, the bearing of the peculiar character of the injuries on the explanation of the cause was not thought out at the time and not developed at the inquest, and the two men were indicted for murder.

At the trial, the prosecution proceeded without the slightest attempt at explaining in detail the mode of production of the injuries.

The attorney for the defense, on the other hand, care-

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fully acquainted himself with the details of the injuries and the theory of their occurrence, but made no use of them in the trial, resting his defense on the weakness of the prosecution, the previous good character of the defendants and the possibility of the wounds having been caused by a fall on the rock and in the ditches at the roadside, as well as by sticks and stones in the hands of the defendants. The men were justly acquitted.

Nothing was brought out in the trial to indicate any knowledge of the injuries on the part of the teamster, and no further steps were taken to locate the responsibility, as, in any event, if produced by the wagon, the injuries must

have been purely accidental.

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The points of interest in the report were the character and sequelæ of the injuries and the total neglect of the aid in the furtherance of justice which might have been given by careful consideration of the special features of the

injuries in explanation of their origin.

In the discussion, Dr. Brockett said that horses, especially with a drunken driver, would stop when meeting with an obstruction to the wheels, and in this case, after the accident occurred, probably stood long enough for the injured man to roll out of the way and then went on without the driver knowing anything about the occurrence. In his experience, Dr. Brockett said he had seen many such cases of injury by wheels of artillery carriages.

The remainder of the discussion turned mainly on the possibility of the condition of the lungs, and death being due to progressive development of preceding pathological conditions, rather than directly to the injuries, and also on the length of time after injury or infection necessary for the production of pus and the formation of abscesses, such as

existed in this case.

The reporter thought that the clinical course of the case together with the nature of the injuries and the pathological condition found post mortem, fully justified the assumption that death was attributable to the injuries, although a probability existed of a previous chronic bronchitis, which might account for the rapidity of the infective process.



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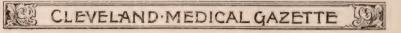
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THE GAZETTE is sent to every subscriber until ordered stopped. When directed to discontinue, at the time of subscribing, the journal will cease coming when time expires. CHANGES FOR ADVERTISEMENTS, or addresses, must reach us not later than the fifteenth day of the month, preceding issue to be corrected in the current number.



WILLIAM JOHNSTON SCOTT.

He was born in Culpepper County, Va., on January 25, 1822, of John and Mary (McKenna) Scott. worked on his father's farm and attended the district school till he was twenty-one years of age, then entered the preparatory department of Knox College, at Gambier, where after five years he received the degree of B. A. He then taught in the same institution for two years, during this



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time paying especial attention to chemistry. In the winter of '49-'50 he took a course of lectures at Cleveland Medical College and then practiced at Gambier for a short time. when he was appointed professor of chemistry at Jefferson College, near Washington, Miss. This position he retained for nearly two years. He received the degree of A. M. from Kenyon College, and after another course of lectures, this time at Starling Medical College, Columbus, that of M. D. He then practiced in Franklin County, Ohio. At the breaking out of the war he was made a recruiting officer and medical examiner. Largely through the efforts of Dr. G. C. E. Weber he returned to Cleveland in the winter of 1863-4 and accepted the chair of Materia Medica and Therapeutics in Charity Hospital Medical College (afterward Wooster), and continued in that position until the reorganization which resulted in the Medical Department of Western Reserve University, in which he held the professorship of Principles and Practice of Medicine and Clinical Medicine. October 25, 1858, he was married to Miss Mary Stone, of St. Johnsburg, Vt. They had four children, two sons and two daughters. Dr. Nathan Stone Scott, the only one living. Mrs. Scott survives her husband.

At the early age of nineteen Dr. Scott was appointed Lieutenant of a company of the Light Infantry, by Gov. Thos. Cowan, on Nov. 1, 1841. Dr. Scott had other military honors, of which his friends may well be proud.

Dr. Scott's death occurred on May 5, of organic heart disease, from which he had for some years been a sufferer. The funeral services took place from his late home, 531 Prospect street, on May 6, at 6 o'clock, this hour being chosen as more convenient for the numerous professional and business men who were desirous of attending and who were present in large numbers. The services were conducted by Dean Williams, of Trinity Cathedral (Episcopal), assisted by Rev. Mr. Skilton, of St. Paul's Church. The hymns were sung by the Arion Quartet. The pallbearers were Dr. H. J. Lee, Mr. S. E. Stone, Mr. Henry Stone, Mr. Ed. Scott, Mr. Arthur Stone and Mr. George Stone.

The burial, which was private, took place next morning at 9 o'clock in Lakeview Cemetery.





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In this compilation are the main events of a long life—given in meagre outline. They tell nothing of the hopes and aspirations, the trials and struggles; they show little of the character, the purposes and plans, and the power to achieve them. They give us only hints of the will and the habits which filled every day with useful labor, and convey no idea of the resignation with which he watched the approaching end of his earthly career. Nor can we hope in these few pages to picture, however briefly, the long panorama of so busy a life. We can only record a few impressions of the man as he appeared among us; to point out the lessons of his life and preserve them to those who follow.

So many of Dr. Scott's traits of character were depicted, and the sentiments which he had inspired were so freely expressed at a memorial meeting which was held in his honor on the evening of May 11, that a short account of this meeting will further our present purpose. The memorial meeting was held jointly by the three local societies of which the deceased was a member and ex-officer—viz: the Cuyahoga County Medical Society; The Cleveland Medical Society, and the Medico-Legal Society, which is a section of the County Society, and was originated through the influence of Dr. Scott.

The presidents of the three Societies, Dr. J. E. Cook, of the Cleveland; Dr. O. B. Campbell, of the Cuyahoga, and Dr. B. W. Holliday, of the Medico-Legal, were a committee to arrange for the memorial meeting, and Dr. Cook presided thereat. He opened the proceedings with appropriate remarks upon the fitness of thus honoring the distinguished dead among the profession, and called upon Hon. Martin A. Foran to speak.

Mr. Foran commented upon Dr. Scott's unfailing cheerfulness at the bedside and its effect upon the patient; and of his extreme unostentatiousness. He then referred to the doctor's faithfulness to his patients, driving about in all kinds of weather, even after age and ill-health had made exposure dangerous, and earned him the right to discontinue.

Dr. H. H. Powell was the next speaker and paid a glowing tribute to the memory of Dr. Scott.





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Dr. C. F. Dutton considered Dr. Scott in his time a powerful thinker and broad-minded in his views. He was also tolerant of the views of other men, and ready to believe there was good in everybody. He studied subjects outside professional lines, including sociology, and was active and practical in all sensible measures of reform. He was persevering and energetic, and firm in his hold of what he deemed the right. If wronged, great was his indignation. He considered him a very extraordinary all around man.

Dr. H. S. Straight said that Dr. Scott certainly was a great man. "He had a broad and large training," said Dr. Straight. "And he had a wholesome contempt for the modern specialist, who is without that broad training. He practiced medicine for its own sake and never considered the financial side. He was a popular teacher, a rugged character, a veritable diamond in the rough, a man of large heart, and a man of the common people. In his life there is an inspiration for the young men. He was one of the noblest Romans of them all."

Dr. B. W. Holliday paid an eloquent tribute to the virtues of the deceased, dwelling especially upon his cheerfulness, and his enthusiasm in professional work, which remained with him to the last. Death came as a well earned rest.

Dr. H. W. Rogers, who attended Dr. Scott in his last illness, spoke feelingly of his friend. He said: Dr. Scott had gifts beyond the ordinary man. He was no common man, but was broad in every sense of the word. He was a teacher not merely in college, but everywhere and to every man he met. His loyalty to a cause, to me was a beautiful thing. His face always wore a smile, even when he was suffering agony. His mind was clear to the last, and he had a keen conception of his case. He knew every indication until shortly before his death, and realized that there was nothing to be done. Dr. Scott did not die from old age. He died from disease. It was to me a painful thing to see his life burned out when he had attained such a standing in his profession.

Dr. W. A. Knowlton related how he had first heard of





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Dr. Scott thirty-seven or thirty-eight years ago, in Pickaway County, where he was the champion debater of that region of country; his ablest opponent, but warm personal friend, being Rev. Dr. Bates, late of this city. It is pleasant to think of the friendship of those men continuing so many years, and that their lives went out so near together. Dr. Knowlton related also a case in which he had called Dr. Scott in consultation. The trip to the country was made in a cold rain, and the physicians after seeing the patient stayed all night at the house. The case was a hopeless one of puerperal fever. Next forenoon Dr. Scott prepared to return, telling Dr. Knowlton he was sorry he must leave, but his presence in the city was necessary, as he must raise several thousand dollars before noon or his home would be lost through a mortgage, and Dr. Knowlton had wondered at the devotion to professional duty which had led him in the face of such circumstances to remain with a hopeless case merely to comfort the family and share the responsibility with the attending physician. It was not good business judgment, but it was Dr. Scott's way. was a public spirited citizen and a student of the collateral sciences. He always advised the students that "the way to succeed was to be well equipped."

Dr. Scott was great in simplicity. He never tried to juggle with logic, but always followed the dictates of reason. He never rose to heights of genius and never fell to mediocrity. No one will be more missed and mourned in this community, and none deserves a higher place.

Dr. P. H. Sawyer spoke of Dr. Scott's zeal in the cultivation of truth. He had once been offered the Presidency of Kenyon College, but declined.

Dr. O. B. Campbell had been most impressed with his large fund of that uncommon thing called common sense. He was a seeker not so much after the new, but the prudent.

Dr. W. H. Humiston admired his giving his time and knowledge freely for the public good. Years ago, when Mr. Herrick was mayor, Dr. Scott, Dr. Humiston and other citizens, with an engineer from Boston, had spent days in investigating, and, as they thought, settling the question of an intercepting sewer for Cleveland.

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Dr. M. Rosenwasser could not speak from close personal acquaintance, but had remarked Dr. Scott's freedom from bias through all the factional wrangles of the local profession. Dr. Scott had never been implicated as a partisan. Concerning statements that he had sometimes taken charge of cases to which he had been called in consultation, the doctor thought it was because he had interpreted the code rather with his heart than with his head, yielding too much to the entreaties of the patient's friends.

Dr. R. M. Woodward, after but short acquaintance with one whom the local profession seemed so much to revere, likened him to Ian Maclaren's Doctor of the Old School.

Dr. G. W. Crile considered that in the death of Dr. Scott, an intellectual force had been lost to this community and a balance wheel to the profession.

Dr. W. E. Wirt spoke of his activity in the Cleveland Medical Society, and Dr. P. Max Foshay of his knowledge of recent medical literature.

Dr. J. G. Spenzer thought him the best chemist of all the doctors of Cleveland.

Dr. J. J. Nungesser spoke of his devotion to hospital work.

Dr. A. R. Baker sent a letter regretting his inability to be present to honor one whose life had so benefitted the public and the profession.

Dr. J. E. Cook believed that no man would be mourned at more firesides in Cleveland than Dr. Scott.

Dr. H. J. Lee spoke feelingly. He was a man, taken all in all, whose equal I have never met. One might point to him and truly say "There is a man."

Our own remarks at the meeting—so many having spoken before—were confined to instances illustrating what had been so truthfully said by others. Showing his professional erudition, his skill in imparting knowledge, and the estimation in which he was held, not only by the laity and the profession in this community, but by hundreds of alumni of Cleveland colleges, now scattered all over the country. Dr. Scott was a conspicuous specimen of genus that is unfortunately not so frequently found in these woods



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of late years as formerly, namely, the old-fashioned general practitioner. He was not willing to admit that there was anything necessary to be done that could not be done by the general practitioner, who should be able and ready in midwifery, fevers, skin diseases, mental and nervous disease, to cut for stone or amputate—in short to know and do whatever was to be known or done in any case. He resented the idea not only of the newer specialties, but even of separating general surgery from the practice of the family doctor. He was fond of relating in illustration to his classes, cases in which he had coped single-handed with formidable conditions, or how he had in early days of country practice "camped on the field of battle," slept on the floor beside the bed of his patient, endured the hardships of bad roads, or no roads, or extemporized means to meet emergencies when no other resources were at hand. He had cut a slender strip of leather from his harness, made an eye in one end and used it in lieu of a Bellog's sound to plug the nares; or he had used the handle of an iron spoon to remove an impaction of black haw seeds filling a rectum. Although well read, not only in the older, but in the later and latest literature of medicine and fully abreast of the times, Dr. Scott never gave one the impression of bookishness. Whatever he had read or heard he had so thought over and mentally digested that it became his own, and when used again had acquired a tinge of his own personality.

Among the little foibles such as appear in the traits or ways of many a man and sometimes even endear him to his admirers, Dr. Scott had one or two which will be remembered by all who ever sat under his lectures. Year after year, at the beginning of the term, he would appear before the class with a manuscript book of what purported to be his course of lectures. He would open that book, half the leaves of which were loose, and proceed to hunt the opening chapter. The students who had been there the winter before would pass a wink. After five or ten minutes spent in a vain endeavor to arrange the leaves the doctor would close the book, and no more would be seen of it till the next year. He would proceed without notes and give such a course on fevers and internal diseases as would fix a

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knowledge of these subjects indelibly in the mind of every attentive hearer. In our opinion his best teaching was clinical. He would regard the patient keenly for several minutes with a quizzical smile, ask a few questions, then pouncing upon some prominent symptom he would turn to the class with, "Now, what does that mean?" and with one point after another proceed to elucidate "the condition" with the shrewd skill of a master clinician. The patient was his note-book.

Dr. Scott was always interested in educational affairs, not only in medicine, but in collateral sciences. Some of the older citizens may recall that some twenty years ago he gave a course of public lectures on geology here in the city which were largely attended.

If we may venture to criticise upon one or two points one who had so many admirable qualites it is only because it seems that a lesson lies therein. Doubtless it would have shown greater wisdom had Dr. Scott during the last decade at least reserved his strength for consultation work entirely, and left ordinary practice to younger men. This would have been of greater benefit to the profession and to the community, and might have prolonged his useful life, and it was his due by virtue of his years and professional standing. But the old habits of the family doctor were strong upon him. Another thing which would have added greatly to Dr. Scott's power had he possessed it, is the practice of writing. With his natural ability, wide reading and long experience, had he been a writer his fame might have been national or world-wide, and his usefulness as much increased and perpetuated by his writings.

Dr. Scott was for nearly thirty years an active member of the teaching force of a medical college, first, Charity Hospital Medical College, which became the Medical Department of Wooster University, and afterward, with the Medical Department of Western Reserve University, when he was a few years ago made Emeritus. During all this time he never occupied an endowed chair nor received a salary for his services. He did his college work because of his love for the profession and its interests, and because, as he would say, he "liked to meet the boys." There are many

of "the boys," some of them growing gray, still at work all over this country, who will be glad one day when they must lay down the burden to meet again with their venerable old teacher.

Below will be seen the resolutions passed upon the death of Dr. Scott by various local societies of which he was a member. He was also a member of the Ohio State Medical Society, and of the American Medical Association.

Whereas, Death has removed from our roll of active membership the name of one whom we delighted to respect and honor, whose able counsel was ever at our service, and whose example was worthy of our emulation both as physician and citizen; therefore,

RESOLVED, That the memory of Dr. William J. Scott as a fellow member and ex-official of the Cuyahoga Medical Society will always be pleasantly cherished by us, and we trust that his zealous and honorable career will remain an inspiration to those of us left to follow in his responsible calling.

RESOLVED, That a copy of this resolution be given the daily papers for publication, and also that the family of Dr. Scott be notified of our action by a suitable memorial transcription, extending at the same time our sincere sympathy in their personal bereavement.

Cuyahoga County Medical Society.
Committee: Drs. H. J. Herrick, B. W. Holliday, C. F. Dutton.

ALUMNI MEETING AND COMMENCEMENT EXERCISES AT WESTERN RESERVE MEDICAL COLLEGE.

The Annual Meeting of the Association of the Alumni of the Medical Department of Western Reserve University was held on the afternoon of Wednesday, May 20. Dr. Darby presided, and the Secretary, Dr. Ashmun, was promptly in his place. The attendance was good. After preliminary business had been disposed of, the president gave an address on the subject of "Recent Advances in Therapeutics." Then followed remarks by a number of the Alumni, led off by Dr. Samuel C. Plummer, of Rock Island, Ill., class of '56. He indulged in reminiscences of college

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days and early practice, which were highly entertaining as well as instructive. He was followed by Dr. James L. Dunn, of Meadville, Pa., class of '50. Dr. Dunn and Dr. Plummer had met in the college that day for the first time since the war, and recognized each other. At the battle of Ross Gap they had worked all night together as surgeons, and parted, knowing only each others surnames. They never knew that they were both alumni of the same school until their meeting here. Dr. John W. Luce, '64, gave the young men good advice. Dr. Nelson G. Packard, of Sturgis, Mich., '50, being called upon to speak, declared his inability. He said, that on starting into business, his preceptor advised him to look wise and keep his tongue still, and he had done so for 46 years, and couldn't make a speech.

Dr. Cornelius V. H. Morris, of the class of '47, now of New York state advised total abstinence from alcohol and tobacco. The Secretary read a number of interesting letters from members who could not be present.

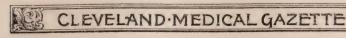
The following officers were elected for the ensuing year. President, Dr. August Rhu, of Marion, O.; Vice-president, Dr. P. H. Sawyer; Rec. Secretary, Dr. Geo. C. Ashmun; Cor. Secretary, Dr. F. E. Bunts; Treasurer, Dr. E. B. Lane.

COMMENCEMENT EXERCISES.

The graduates this year number twenty-seven. Their names are as follows:

Frank Acker, George John Ashby, Louis P. H. Bahrenburg, Homer Calvin Ballard, Frank Peter Charvat, George Ray French, Jacob Fridline, George F. Garmier, Harry Lorenzò Gilchrist, Nehemiah Atwood Haning, Charles Jenner Harris, William Hendry, George Thomas Holmden, Anson P. Howland, William Grant Huffman, James Francis Kelley, Charles Edward Kimmerline, Walter Ball Laffer, Thomas Linley, William Pence Love, Henry R. Morse, Louis Theodore Schurrer, Henry Richard Simon, Forald Sollmann, Charles H. Tanner, Samuel J. Webster and Edward W. Wellman.

The exercises were held in Association Hall, which





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recently witnessed also the commencement exercises of the Dental Department W. R. U. The address was made by President-elect William Pierce, of Kenyon College on the subject of "Idealism and Materialism," which was handled in a very learned manner.

The degrees were conferred by President Thwing, and the dean, Dr. H. H. Powell, in his happiest manner, gave the new doctors a welcome to the profession and some parting advice.

The exercises were followed by a banquet at the Stillman.

And then the following toasts, Dr. R. M. Woodward being toastmaster: "Our Professional Brethren," Dr. M. Rosenwasser; "The Medical School," Dr. G. N. Stewart; "The University," Professor Mattoon M. Curtis; "The Class," Dr. G. T. Ashby; "The Kinship of the Professions," Mr. Francis J. Wing.



By Geo. W. Crile, M. D.

RADICAL OPERATION FOR REDUCIBLE HERNIA.

Greiffenhagen, (St. Petersb. Med. Woch. Dec. 1895), says that the mortality in non-incarcerated hernia is so much reduced that in cases not complicated by intestinal or mesenteric resection it may be said to be nil. In their tables, Boca reports 250; Bassini, 239; Kocker, 220; Macewen, 82. Making 790 cases in all, without a death.

As to the ultimate, or permanent results, the following shows well: Kocher by his latest method 0%; by his former method 8.6%; Macewen, 0.6%; Bassini, 3%; Wolfler, 5%;

Kuster, 6%; Schede, 10% of failures.

While many of these cases have not stood the test of sufficient time to be really classed as permanent cures, the harmlessness and a big per cent. of permanent recoveries, are at least well established.

The present status as indicated enlarges the scope of indications for operation.

All cases not readily reducible, or are difficult to retain





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by means of a truss, or have shown a tendency to inflammation, should be subject to operation.

The operation is indicated also in the following con-

ditions:

- 1. In all hernia in which the truss holds imperfectly or not at all, or in which the truss is the source of irremediable discomfort.
- 2. In that c lass of cases which are unable to buy a good truss.

3. In children, more especially of the hernia is large.

4. Finally even though a truss may properly support if the patient wishes to be relieved of his pathological condition, operation should be made.

The contraindications are: impossible cases on account of size, or general condition of the patient forbidding any

form of major operation.

Small, free, recent hernia in young subjects in which

no adhesions have formed, are most promising.

The author would recommend the method of Kochers, the Bassur, Macewen or Frank, according to the case at hand.

PROSTATIC HYPERTROPHY.

Albirran (Annals. des. Mal. des. Organs Genito-urin.) Reports a case 64 years of age, who had had four attacks of gonorrhea since June 1894, had difficult micturition and frequently retention necessitating catheterization and finally when this became impossible hypogastric puncture was made. Double castration was performed and on the afternoon of the day of operation, patient had spontaneous micturition.

The amount of residual urine after spontaneos micturition was 180 grammes on the eleventh day, on the 21st day it fell to 25 grammes and since then it has remained about 20 grammes.

EFFECT OF ETHER AND CHLOROFORM ON THE KIDNEYS.

Eisendrath (Deutsche Zeitschrift fur Chirurgie) reports 70 cases of chloroform narcosis and 60 of ethernarcosis. In 13 there was albumen in urine before narcosis, in eight of which there was increased albuminuria, in four of which chloroform was administered and four ether. In patients whose urine was free from albumen before operation there was albuminuria in 25% after ether, and 32% after chloroform.



BY L. B. TUCKERMAN, M. D.

It is pretty well recognized by the profession that in investigating the conditions which may give rise to enuresis in a boy, the prepuce should be thoroughly examined to see whether it be adherent or no, and if found adherent, it is often necessary to do no more than to free the prepuce from its adhesions and take proper care that they do not form again. It is not so generally recognized that the same fact obtains in girls—that an obstinate enuresis is often occasioned by an adherent prepuce binding the glans clitoris down. In this connection, the case reported by Dr. A. Russell STRACHAN, of New York City, is interesting and in point. A little girl four years of age was in the habit of wetting her bed and her clothes constantly, and her physician had exhibited all the standard remedies without avail. Examination as to the condition of the parts showed the glans clitoris to be scarcely observable, the mucous membrane surrounding being firmly bound down over it by adhesions. These latter were carefully dissected back until the glans was entirely free. Simple antiseptic dressings were applied and an absolute and immediate cure resulted. This case. which is by no means unique, should serve to remind us again that as a matter of routine we ought to make the same thorough local examination in a girl complaining of enuresis as in a boy, and in case adhesions be found, not to expect any satisfactory effect from drugs till the local condition has been remedied. This matter assumes a greater importance in in view of the fact that it is becoming conceded that adherent prepuce is a frequent, if not uniform, concomitant of absence of normal sexual feeling in the adult female, which latter condition has been wholly relieved in not a few cases by the same simple procedure. The experiments of Dr. Thos. H. MANLEY, of New York City, showing that stasis of the circulation below the seat of injury follows a fracture or dislocation in an extremity irrespective of whether the main artery has been injured or no, has an important bearing on the treatment of fractures. He therefore maintains that the first thing to do in a case of fracture of the bones of an extremity is to see that the circulation is fully re-established. He condemns tugging and dragging on the already wounded muscles; encumbering the limb by hard and resisting splints; adding fresh danger by applying layer after layer of firm muslin bandaging; keeping the bone "set" by

¹ Med. Rec., Mar. 7, '96.

² Med. Times and Register, Feb. 29, '96.



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mechanical appliances while the life-giving element on which it depends for nutrition and repair is impeded in its movements by those very same appliances. He recommends that the limb be flexed to secure muscular relaxation and placed in a comfortable posture; that measures be taken to promote the restoration of the circulation; and not till after the blood current has been fully re-established in the peripheral vessels are retaining splints indicated. impetus given to the microscopic morphology of the blood by the investigations connected with the study of the natural history of the plasmodium malariæ is beginning to bear fruit in other and almost equally important directions. According to Dr. L. Bremer, of St. Louis, we can now diagnosticate hematogenous diabetes by a process of double staining a thin film of blood on a cover-glass more satisfactorily than we can by the chemical test. Moreover, we can thus discriminate between hematogenous and renal diabetes, for the latter reacts to the chemical test only. We have not space to enter fully into the details of preparing the re-agent, the components of which are eosin and methyline blue—for these, and for the details of the somewhat complicated process of preparation for staining, we must refer our readers to the original article. Suffice it to say, that with this re-agent, the red blood-corpuscle of the diabetic stains green, and that of the non-diabetic stains a purple or madder color. So plain is this difference of color that it is not even necessary to put the specimen under the microscope to appreciate the difference and make the diagnosis. Further, the color re-action of the blood is plain when the re-action of the urine to the ordinary sugar tests is barely perceptible, or even after the urine has ceased for the time to give sugar re-actions. We may reasonably hope, it would seem, that, as in the process of staining for tubercle bacilli, a shorter and more convenient method will be discovered which will make such diagnosis practicable by the ordinary practitioner.

³ N. Y. Med. Jour., Mar. 7, '96.



PEDIATRICS, THE HYGIENIC AND MEDICAL TREATMENT OF CHILDREN.
By Thomas Morgan Rotch, M. D., Professor of the Diseases of Children, Harvard University. Philadelphia: J. B. Lippincott, 1896.

It is now some months since Dr. Rotch's book appeared and was noticed, but we think we are doing the profession a favor in again calling attention to it. especially true at this time of year. While the book is commendable for its presentation of all the various subjects under the medical side of pediatrics, it is particularly excellent upon digestive disorders and artificial feeding. know of no book which will be more helpful to the doctor through the summer months than Rotch's "Pediatrics." It will pay for itself over and over. Another interesting division, not often so thoroughly handled, though not so commonly needed, is that on premature infants. Considerable space is given to this subject and a description of the author's brooder for premature infants. The book is a model of the modern bookmaker's art. It is profusely illustrated with plates and cuts from photographs and drawings. It is in every way an admirable volume upon medical pediatrics.

A TREATISE ON THE MEDICAL AND SURGICAL DISEASES OF INFANCY AND CHILDHOOD. By J. Lewis Smith, M. D., Chemical Professor of Diseases of Children, Bellevue Hospital Medical College, etc. Eighth edition, thoroughly revised and greatly enlarged with 273 illustrations and four plates. Lea Brothers & Co., New York and Philadelphia, 1896.

"Smith on Children" needs no introduction to the profession which has exhausted seven editions of the work and will doubtless promptly dispose of this, the eighth. This one is better than any previous edition. It is up to date on etiology, pathology and therapeutics. The surgical diseases of children have been presented by no less an authority than Prof. Stephen Smith, the well known surgeon and author. Dr. Joseph O. Dwyer has prepared the section on Intubation, and Dr. A. R. Robinson has assisted in the section on Skin Diseases.

The book is dedicated to Dr. Frederick R. Warner, who died of typhoid during the progress of the work, in

which he was assisting.

As a complete text book, embracing both the medical and surgical sides of pediatrics, there is nothing so recent or quite so satisfactory at the present time as Dr. Smith's work.



The Ohio State Pediatric Society held its Second Annual Meeting at Columbus on May 27, convenient quarters having been secured at the Chittenden Hotel. The programme proved to be very interesting, the papers and discussions keeping the members employed from 9:30 a.m. until 5:00 p.m., with the exception of an hour at noon, when they adjourned to the dining room for a social luncheon. The report of the secretary showed a membership of about fifty. Five new members were added at this meeting.

One feature of the programme was necessarily omitted, on account of the accident which occurred about two weeks previously, at the Ohio Institution for Feeble Minded Youth. This magnificent building and institution is located in the suburbs of the city, and the Pediatric Society had been invited by Superintendent Doren to visit it in a body after ending the papers and discussions. Two weeks ago the gas tank of the institution became disordered and the Superintendent with a party of workmen and attaches had gathered to right it, when a fearful explosion took place, resulting in the death of one man and serious burning of five more, among them Dr. Doren. He is now on the way to recovery, but not yet able to be out of bed.

The constitution was so amended that membership is not restricted to residents of Ohio, applications for admission having been received from pediatrists in adjoining states.

Dr. S.W. Kelley, of Cleveland, was re-elected President. Dr. J. P. West, of Bellaire, was elected 1st Vice President, and Dr. D. L. Moore, of Columbus, 2d Vice President. Dr. G. M. Clouse was re-elected Secretary, and Dr. J. M. Dunham, of Columbus, Chairman of Council.

The programme was published in the May number of the GAZETTE and the papers will appear in future issues. The next meeting will be held in Cleveland during the

meeting of the State Medical Society.

Dr. P. S. Connor writes about the X Rays, "I was much interested in the articles in the Gazette x x x. Of how much value we may find the new discovery remains to be seen but I am sure it will be considerable."

Dr. H. M. Page has been elected Lecturer on Anthropometry in the "P. & S." of Cleveland.

Dr. Charles E. Slocum of Defiance. O., has been elected Prof. of Ethics in the College of Physicians and Surgeons of Cleveland.



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Funeral Street Cars.—The funeral reform associations will find themselves outdone in the reform business if a plan now said to be under consideration by a Cincinnati street railway company is put into practice. They talk of making a funeral car to take the place of the hearse and procession of cabs. The car would be made with a separate compartment in front to contain the casket and seats for the pallbearers, family and friends of the deceased. The car would be more easily cleaned and disinfected than the usual carriages and is approved by the board of health. It is said that the undertakers favor the plan. They find the keeping of horses and carriages expensive in dull times. and make a practice of each keeping a few and lending or hiring back and forth among themselves as occasion demands, squaring accounts at stated intervals. This would be obviated by the car plan. The cost of funerals would be much reduced, and altogether there are many things that may be said in favor of the new way.

The State Board of Medical Registration and Examination in its recent session at Columbus, adopted the following resolutions which are in effect, the Board's interpretation of the Kimmel Bill and indicate the rules by which it will

accept or refuse certificates.

Resolved, That all medical colleges of the United States requiring a minimum of three years study of medicine and two courses of lectures for graduation, prior to 1886, and possessing proper facilities for teaching and a faculty embracing the chairs of anatomy, physiology, chemistry, materia medica, therapeutics, medicine, surgery and obstetrics, shall be recognized as in good standing and diplomas issued by the same and properly verified shall entitle the holders thereof to register as graduates in medicine under the laws of the state of Ohio, providing that no certificate shall be issued to any applicant upon proof that his or her diploma has been obtained fraudulently or in violation of the published rules of the colleges issuing the same.

2. Resolved, That for the ten years ending February 27, 1896, all medical colleges exacting the foregoing requirements and possessing facilities and a faculty as specified in foregoing resolution, shall by virtue of such facts, be recognized as in good standing to and including the year 1892, but that no medical college shall be recognized as in good standing which has not since 1892 possessed the foregoing facilities and faculty, which had not, in addition, exacted an entrance qualification and attendance upon three regular courses of lectures, as a condition of graduation.

condition of graduation.



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3. Resolved, That on and after July 1, 1899, no medical college shall be recognized as in good standing which does not require the entrance qualification prescribed by the "Association of American Medical Colleges" as a per-requisite for the matriculation; which does not possess an adequate equipment for teaching medicine; which has not clinical and hospital facilities, based upon a municipal population of 50,000, and which does not have an active faculty embracing the departments of anatomy, physiology, chemistry, therapeutics, materia medica, medicine, obstetrics, histology, pathology, bacteriology, cyncology, gynecology, laryngology, hygiene, state medicine, surgery, ophthalmology, and which does not enjoin attendance upon 30 per cent of four regular courses of instruction, of not less than twentysix weeks each, in four different years, and which does not exact an average grade of 75 per cent on examination as conditions of graduation; providing that the rule relative to population as a basis for clinical and hospital facilities shall apply to institutions under state control, and that by virtue of such control, receives, gratuitously, patients from all

Seven Children at a Birth.—According to a correspondent of the Toledo Blade, at a place called Fisher's Corners, in Michigan, about thirty-five miles from Toledo, a Mrs. Charles Comstock gave birth to seven children at one confinement. This occurred during the first week of May, and at this writing the children all but one which died are three weeks old and are doing well. There were four girls and three boys.

parts of the state in which such colleges are located.

The Individual Communion Cup is Growing in Favor.—Says the Bullctin of the State Board of Health: A number of churches have adopted it, and wherever used it has given great satisfaction. While the danger of contracting disease from the common cup may be very slight, as a matter of cleanliness the old custom should be abandoned.

An Accident to a Medical Student.—H. R. Simon, member of the graduating class of the Med. Dept. W. R. U., met with a severe accident on Commencement day, Wed., May 20. He was standing on the sidewalk when a runaway horse with a wagon dashed up on the sidewalk, catching Simon between the wheels and the fence, and dragging and crushing him severely. At last accounts he was recovering.

Dr. Albert Hoover, of Akron, died at Cambridgeborough, Pa., on May 14. About two months ago as he lay on a couch at home, one of his children playfully walked over

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him, and falling upon him, injured a testicle. This led to abscess and finally to pyemia, which caused his death. Dr. Hoover had made special study of the eye, and was considered by his neighboring physicians an oculist of ability, with a bright future. He was only thirty-six years old.

The Indiana State Medical Society held its annual meeting at Fort Wayne during the last week of May. The next meeting will be at the same time next year at Terre Haute. The officers for the ensuing year are: President, Dr. J. H. Ford, Wabash; vice president, Dr. W. A. Batson, Lagoda; secretary, Dr. F. C. Heath, Indianapolis; assistant secretary, Dr. Rooker, Shelbyville; treasurer, Dr. A. E. Bulson, Fort Wayne.

The Case of Dr. A. P. Beach.—It appears that some months ago, Dr. A. P. Beach, of Seville, put on the market a preparation which he was selling through female agents all through the country. The bottles were labeled "Glycozene," and it was called "Glycozone" in the circulars. This led to proceedings in court, and the use to which the stuff was put is sufficiently set forth in an injunction issued on

the 25th day of February, 1896.

Now, therefore, it is hereby ordered, adjudged and decreed that a preliminary injunction be issued pursuant to the prayer of the Complainant's bill, strictly commanding and enjoining the said defendant, A. P. Beach, his clerks, agents or workmen, under the pains and penalties which may fall upon them, and each of them, in case of disobedience, that they forthwith, and until the further order, judgment and decree of this Court, desist from making and selling a liquid preparation put up in bottles with labels applied thereto, bearing the name of "Glycozone," or in any manner using the name "Glycozone" in circulars or labels put out by him, referring to the said standard preparations of said Charles Marchand, in connection with instructions for the use of said product "Glycozone" as a preventive of conception, or in any manner connecting it with the use of his so-called "Applicator" as a preventive of conception, or in any manner making or selling, or causing to be sold in connection with said Applicator, or using, or prescribing its use as a preventative of conception, or in any manner using, making or selling, or sending out circulars giving directions to use "Peroxide of Hydrogen" (Marchand's Medicinal) in connection with the use of said "Applicator" as a preventive of conception, and that defendant deliver up to be destroyed, or destroy all bottles, labels, circulars or other things containing complainant's trade mark.

Comment is unnecessary.

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A STANDARD PREPARATION.

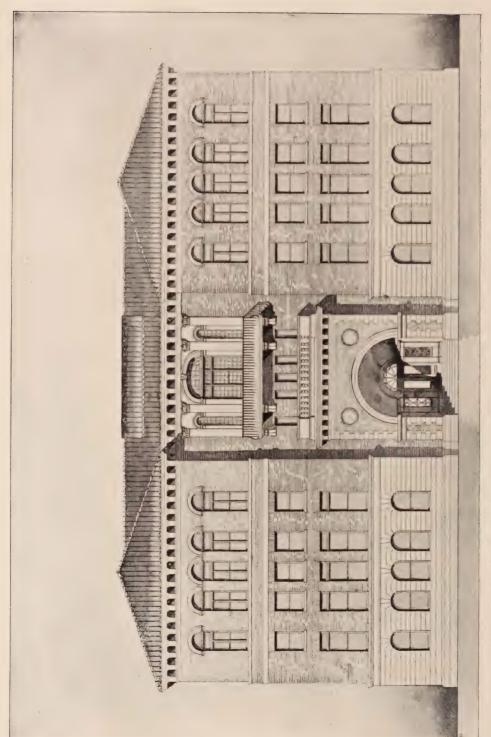
Ferratin.—In Sajous' Annual of the Universal Medical Sciences, 1895, vol. V, A, 90-91, Dr. Dujardin-Beaumetz summarized the record of Ferratin, the new iron food and tonic reconstructive, as follows: Ferratin is the name given by Schmiedeberg (1) (2), of Strasburg, to that combination of iron which is found in the normal tissues and which is stored up in the latter as a reserve from which it may be drawn for the formation of blood. He has succeeded in producing this substance, by artificial means, in the form of a fine powder of red-brown color, like oxide of iron. Two forms are known to commerce—the one simple and insoluble in water, the other a sodium compound which readily dissolves on stirring after being allowed to stand a little while in water. The latter must be as free as possible from lime, otherwise an insoluble calcium compound is formed. Ferratin, in contradistinction to those compounds of iron hitherto in use, is readily assimilated and does not produce any unpleasant disturbance in either the gastric or enteric functions, even when used for a lengthy period; indeed, in some cases its exhibition seems to produce improvement in the appetite and regularity in defecation. As a portion of the substance is decomposed by the acid gastric juice and also by sulphuretted hydrogen, a sufficient quantity of ferratin must be ingested to leave an overplus in the bowel-tract so that the organism may pick up as much as it requires. There is no necessity whatever to anticipate overloading of the organism with the iron, as absorption and excretion appear to be mutually controlling. Excretion does not take place through the kidneys. The daily dose for adults is 1 to 1.5 grammes, $(15\frac{1}{2})$ to $23\frac{1}{4}$ grains). Acids should be avoided, but no other restrictions are necessary. Schmiedeberg points out that ferratin is first and foremost a food, and its use is indicated in all cases in which nutrition and blood formation are unsatisfactory.

Banholzer, of Eichhorst's clinic (3) (4), relates his clinical investigations with this preparation. In anæmia following acute disease, the hæmoglobin was quickly increased, (over 5 per cent. in eight days), as also the number of red cells. In chlorosis the same results were visible even in a more marked degree. The general condition was improved and the increase in weight in most cases considerable. The good effects on the appetite were obvious. When compared with Balud's pills, which also give good results, ferratin was found to lead to a greater increase in the hæmoglobin. John Harold (5) found that in three cases of severe anæmia the preparation appeared to exert a remarkable hæmatinic effect; it did not interfere with digestion or produce any constitutional disturbance. In one of the patients, iron, in the form of a scale-preparation or as reduced iron, had been previously given for twelve months without apparent benefit.

Germain See (6), has also tested ferratin, and finds that it can be employed in men apparently healthy or in children and chlorotic subjects, the curative action not being interfered with by injurious secondary effects, as is often the case when ordinary ferruginous preparations are used. The dose used by him is from 0.05 to 1.5 grammes (7-8 to 231/4 grains) two or three times a day. Each dose contains about 7 per cent. of iron. Marfori (7) states that care should be taken not to associate it too closely with acid materials. Hugo Wiener (8) reports twenty cases in which it produced favorable results.

- Archiv fur experimentelle Pathologie und Pharmacil, Leipzig; 23, Nos. 2 and 3. Provincial Medical Journal, Leicester, Eng., April 2, 1894. Centralblatt fur Klinische Medizin, Leipzig, Jan. 27, 1894. British Medical Journal, Feb. 17, 1894. Practitioner, London, August, 1894. Practitioner, London, August, 1894. La Presse Medicale, Paris, August 25, 1894. Annalı de Chimica e di farmacologia, Milan, Feb. 1, 1894. Prager Medizinische Wochenschrift, Prague, April 18, 1894.





The Proposed New Building for the Cleveland College of Physicians and Surgeons, Med. Dept. Ohio Wesleyan University, Cleveland, O.





THE WATER TREATMENT OF TYPHOID FEVER.*

BY JOHN H. LOWMAN, M. D.,

Prof. of Medicine, Western Reserve University.

The treatment of typhoid fever by baths of cold water is constantly making converts. The great apostle of this method of managing typhoid fever cases is Brand.

He is a private practitioner in Stettin. He has no hospitals under his control and has developed this system among his private patients. His experience is now extensive, his cases are numerous and his results satisfactory. He has had much to combat and many prejudices to overcome among his confreres. He has been in conflict with the theories generally held. Especially as to the way the water should be used. His ideas have, however, generally prevailed, and where the water is now used in the treatment of the typhoid fever the suggestions and methods of Brand are usually followed.

Since his first publication on the subject in 1861 Brand has constantly been occupied in combining the most simple and most efficacious procedures in order to meet the fundamental indications of the disease, i. e., to maintain the patient in a state of relative apyrexia during the febrile

*Read before the Canton Medical Club.





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period. In 1877 he abandoned the tepid bath with cold effusion and gave his preference decidedly for the full cold bath, as he calls it. That is to give a bath at 68 (20) fifteen minutes in duration regularly every three hours day and night, whenever the temperature reaches or passes 102. 2 (39 c.) This may be said to be the general formula and is applicable to a great number of cases. It is not an absolute, unchangeable formula however. It is necessary to study details and to modify them according to the individual, the fever, the time of the beginning the baths, dating from the beginning of the disease, and the complications.

The bath is given in a tub sufficiently large to permit the patient to lie down and have the shoulders covered with water. Such a tub for an adult should be 5\frac{3}{4} ft. long, 22 inches wide and 16 inches deep. Even then it is cumbersome. If the tub be too large it occupies too much space and may be in the way and incommode the attendants, if the sick room be small. Yet it should be sufficiently large, for a small tub will prevent the water covering the patient. Furthermore if the tub is very large there is more labor and time required in emptying and refilling when a change of water is necessary. The physician should own the tubs himself and thus no time will be lost in having them at hand when needed. Portable bath tubs of proper size are difficult to get quickly. Proper sized tubs that are convenient can be made of galvanized iron for six dollars.

It is not necessary to remove the water after each bath. Once in twenty-four hours or even once in forty-eight hours will be sufficient. I have tried, in order to lighten the burdens of the attendants, having a few pails of water removed and as many added before each bath. In fact this is sometimes necessary in order to maintain the required temperature of the water. When this only is done and the water not entirely removed once in forty-eight hours a scum accumulates on the bottom and along the sides of the tub which makes the water unclean. The tub should therefore be emptied and thoroughly cleaned once in twenty-four hours and oftener if the water is polluted with the stools. The tub should be placed by the side of the bed convenient



for lifting the patient and protected by screens from currents of air so that there is no possibility of draughts striking the patient; windows and doors should be closed.

There is no danger in removing the patient from the bed to the bath. The dangers of disturbing a patient are in our mind exaggerated. One case I observed, which was indeed only moderately severe, yet with a slight lung complication, walked to the bath room four and five times a day and took his bath there without apparent danger and always with immediate subsequent relief. Unless comatose or very ill the patient, even if a heavy man, can be handled with one skilled attendant. Two are of course better and the time may come in the course of the disease when two attendants may be necessary. With children there are no difficulties as they can be easily lifted into the tub. When there are tendencies to fainting and when after the bath the face grows pale and the pupils dilate and the heart shows any diminution in force several swallows of brandy and water should be given before the bath. In fact this rule of stimulating the patient before the bath and giving warm beef tea immediately afterwards is a very safe practice. During the bath the body and limbs of the patient should be constantly rubbed by himself and the attendants. This agitates the water and brings a colder portion constantly near the skin and creates a circulation of the blood near the surface so that a cooler blood is carried down to the heated vicera. The surface capillaries are thus not so much contracted, blood pressure is correspondingly not so great and the heart is not taxed to the same degree. Thus the body is cooled more rapidly and the circulatory apparatus is not disturbed suddenly to the same degree as otherwise. Cold effusions to the head must also be advised. Brand suggests bathing the face with water much colder than the water of the bath at the beginning, the middle and end of the bath. This is especially necessary in cases complicated with cerebral disturbances; the greater the delirium and the more profound the coma the colder should be the water used in the affusions. When the coma is profound one continues the cold affusions almost during the entire time of the bath. This pouring of the water is often very disagreeable to the patient





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as drops will run into the eye, nose, mouth and ears. To avoid this a pocket handkerchief should be covered over the face and the hair should be tied up in a fillet, then the water can be poured with greater freedom and less annoyance.

About the middle of the bath let the patient drink a glass of cold water.

During these proceedings the patient will shiver and take sighing irregular respiration as if he was somewhat dyspnoec. On questioning him you will find that he is not short of breath but is shivering. He may complain of the cold, and if a child, he will cry out and beg to be taken from the water. The physician should therefore be present at the first few immersions and by encouragement and assurances urge patience and endurance. When the shiverings commence in the bath it is an evidence that the internal temperature has commenced to descend and that the thermic center has begun to be regulated. If the shiverings are marked during the bath the time limit may be shortened and the general formula be modified.

The duration of the bath should be fifteen minutes subject to but few modifications. If by experience it can be shown that the temperature falls rapidly and repeatedly after a bath of fifteen minutes the time can be shortened to ten minutes or even less time. This would indicate that the fever resistance is slight. Much depends on the fever resistance. Until this is overcome the baths must be pushed and even increased in number and the temperature of the water lowered. Conquering this resistance is what is known as the combat with the fever or the fieberkampf as Brand puts it. In some the resistance of the fever is very great and can not be influenced apparently for several days, in others one bath has a pronounced effect.

After the bath the patient is lifted into his bed, which has been covered with a blanket and a sheet. The latter is to be used in drying him. Then he is covered with a light blanket, a warm flannel is wrapped about the feet and legs as far as the knees and another flannel placed in his hands, or even there a warm bottle can be used. After drying him the night shirt may be readjusted. He should not be burdened with too many covers. It is a mistake to make the

body too warm. Such a procedure would counteract the effects of the bath. Thirty to forty minutes after the immersion the temperature should be taken again. This observation is necessary in order to furnish indications for the subsequent treatment. Take temperature in the rectum. Rectal temperature is more uniform and one degree higher than axillary temperature.

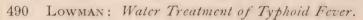
Notwithstanding the shivering, the patient is quiet and experiences a veritable sensation of comfort. He is refreshed, the pulse is stronger and he feels more himself.

This is the most favorable time for nourishment. He may take milk, bouillon and brandy. After this light repast he will experience a feeling of satisfaction and quiet, and fall into a gentle slumber. This sleep should be respected. Silence should reign in the room and no one have access to the bed but those in immediate charge of the sick person.

The temperature of the water varies according to circumstances, yet in general it should be 68. One often begins treatment with a child, a weak or nervous person with a bath of 85, and lowers the temperature of the water with colder water or ice while the patient is in the water. The next bath can be fixed at 80 and so on gradually down to 70. Jurgensen has experimented with baths of 50, or even 45. At that low temperature the baths are shorter and not so frequent. Experience does not show that they are more efficacious or that the combat with the fever is shorter. They are more of a shock to the patient and are difficult to introduce outside of hospitals.

Tepid baths of 85 and 90 and more prolonged, have not given good results. It has been found that the temperature of 68 is more frequently followed with reductions of temperature. A warmer bath will often produce no reduction—and the oscillation of the temperature is the measure of the efficacy of the bath. At first there should be a reduction of 1 or 2 degrees after the bath. In mild non-resisting cases this may sometimes be accomplished with a warmer temperature, but in others of a severe type there will be little or no reduction until the temperature of the water reaches that of the general formula.





Ordinarily the baths are given every three hours but this is not absolute; much depends on the march of the fever. It may be necessary to make the interval two hours or advantageous to lengthen it to four.

Leichtenstein studied the temperature curve in some two thousand (1960) baths and found that the temperature returned to the point it had reached before the bath at the end of two hours in about one-fifth of the cases. In the severe forms the return was much quicker even in 45. It is a question whether the bath should be given more often than every three hours. Brand thinks that eight baths in 24 hours are sufficient and that this rule need but very rarely be modified.

A return of the temperature under 104 or 105 need not require more frequent baths. When the temperature is high we have counseled more frequent baths, especially where the nervous symptoms are more pronounced, headache severe, etc. The bath should be continued through the night; much valuable time is lost by omitting the baths at night.

The objection that the rest of the patient is disturbed is not a valid one. As Brand says can one call repose insomnia excitement of the fever, agitation subsultus tendini?

That is confounding stupor and true rest. The moment of veritable repose is after the bath. A dozen baths through the day will scarcely compensate for the suppression of the bath at night.

As night comes on the intensity of the fever increases. The aim is to keep the patient in a state of relative apyrexia. If the baths are omitted as the fever rises at night the resistance of the patient is greater on the following day.

Towards morning there is a tendency to a depression of temperature; the baths aid this spontaneous reduction. Some of the most marked reductions of temperature are noticed in the early morning. The lower the temperature goes the slower it is to rise again.

While the usual duration of the bath is fifteen minutes, there are modifications of this point, though generally it can be carried out. The aim to keep in view is the reduction of the central temperature. This is indicated by a shiv-





ering sensation, slight rigors that come while the patient is in the bath. They may be accepted as indicating the efficacy of the bath, and the time may be measured by it. The longer the chilling sensation continues the more prolonged will be the reduction of the temperature. Thus the patient need not be moved as soon as he begins to shiver. In fact, he feels cold in the bath, and pulls himself together as if to avoid the cold water, almost as soon as he strikes the water. In mild cases there may be reductions of \(\frac{1}{2} \) to \(1\frac{1}{2} \) degrees after a very short bath in which the chills have appeared soon after the immersion. In the violent cases it may be necessary to prolong the immersion much longer, and even then gain no results. When the central temperature has been vanquished, and the resistance of the fever overcome decidedly, the rigors and shivering, even to vigorous chattering of the teeth, will continue for twenty minutes after the patient has been placed in bed. As a rule, I have aimed to leave the patient slightly shivering. It is the proof that more than the surface temperature has been modified.

The degree of temperature of the body at which a bath should be given is 102.2. This is a good rule, and in many cases can be followed exactly. When, however, the temperature persistently rises to 101.5 or 102 every day, and shows no inclination to continue the depression begun earlier, the bath should be recommenced, otherwise the fever may acquire a renewed resistance and mount even higher. In nervous cases where the agitation comes on towards night a bath of 75 or 78 can be given, even though the temperature be but 100. It will ensure repose and a more peaceful night and more extended sleep. In the convalescence from severe cases the patient often asks for the bath, even when the temperature apparently does not demand it.

It becomes a practical question to consider, however, when the temperature should be taken. There are sometimes difficulties in the way of taking the temperature by the rectum. It may provoke diarrhæa and even-irritation of the rectum and a marginal abscess of the anus, though this I have never seen. In medium cases six observations only may be necessary during the 24 hours, and later four only may be required. The place of taking the temperature is





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varied sometimes by the attendants. In fact, it is difficult even in the hospitals here to impress the attendants with the importance of accurate thermometic notations. One attendant will take the temperature of the mouth and perhaps not observe whether the patient has just taken cold water. Several times I have observed house surgeons even careless in this respect. Another will take the temperature in the axilla. The temperature curve is thereby falsified. There are other signs of the intensity of the fever that will attract the observer and call in the aid of the thermometer, e. g., headache, drowsiness, nervousness, agitation, thirst, drvness of the lips and tongue, insomnia, the color of the face. It is claimed by some and denied by others that the peculiar coloration of the face noticed in typhoid fever and especially the redness of one or both cheeks is not seen when the patient is bathed and the temperature does not mount above 102.2.

It is certain that these peculiar symptoms serve as a guide to the physician and inform him of the faithfulness of those immediately in charge of the patient. Sometimes in the beginning of severe cases the temperature will not fall after the bath. It then becomes a question whether the temperature of the water should be lowered and the immersion prolonged.

The extremists insist in such cases on depressing the temperature of the bath until an effect is seen. Those following the school of Brand are inclined to remain by the general formula of a bath of 68 or very little lower. Even though the high temperature should persist for several days, the thirst, dry tongue, agitation and insomnia will be moderated at least.

The time for beginning baths should be at the time the diagnosis is established. The sooner the baths are begun the sooner the resistance of the fever will be overcome. Many cases have died where the baths have been commenced during the last of the second week and the beginning of the third. Typhoid patients who are moved in the third week are subjected to great danger. The agitation, excitement and fatigue incident to the trasferring to a hospital have a decidedly depressing effect and all the grave symptoms are

likely to reappear. Baths given at this time are often powerless to prevent the subsequent decline of patient. The diagnosis of typhoid during the first week is often difficult. After a few days of doubt the bath should be commenced. Fevers from gastric disturbance are benefited rather than otherwise; in malarial and fevers of gripp the treatment may be continued. Even in slowly developing pneumonia there is no danger to be feared, certainly in the pneumonia of typhoid the bath need not be suspended unless especially contraindicated by unusual conduct of the patient in the bath.

It is often a delicate point to decide when one should stop the bath. Undoubtedly as a general rule the bathing may cease after the temperature falls and fails to rise above 102.

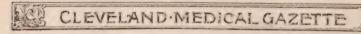
When however there is a tardy convalescence with a slight rise a bath at 74 or 80 for six to eight minutes should be given twice a day. In convalescence with occasional sudden rise and fall of temperature the bath should be continued.

The refrigeration process need not be stopped suddenly in any case. It has been my custom to continue the tepid and evening baths until the temperature reaches 100, and shows but little disposition to rise. The temperature at such times is easily depressed, the patient is refreshed and is more certain of repose during the night and convalescence is established in a more positive and sure manner.

The idea of reducing a fever by the application of cold is by no means a new one.

Through the centuries it has been advocated but constantly met the aphorism that the cure of the fever is the fever itself. It was never placed on a simple basis; never made by careful analyses the common property of man and consequently fell repeatedly into oblivion. There have been many obstacles to overcome and many prejudices to conquer. It is only necessary to cite this one the bathing of women during menstruation.

It was years before Brand could bring himself to consent to this. Only when he was convinced that the fever gained headway during the menstruation, in consequence of



the omission of the baths, could he bring himself to the point of bathing women during this period. The resistance of the fever increases during the night if baths are omitted and more frequent baths are required the next day.

How much more would the fever gain during two days? He was satisfied that some patients died because the baths were discontinued. Therefore he decided with much trepidation to continue the bathing during the catamenia.

No evil resulted and this practice is now followed. I have now under observation a case of hysteria with melancholia and cataleptic symptoms which is being bathed with water at 75° every four hours. The treatment was carried on during the menstruation without any modification of that function although there was a rise of temperature of but one-half a degree at the time.

Other difficulties have been met in the same careful way so that one can have the assurance that the subject has been assiduously studied, the details carefully arranged and the method substantially founded. The aim of the refrigerating process is the reduction of temperature and the control of the fever. The etiology of the disease is fairly established and is found in a germ, whether this germ is in greater abundance in the blood or in the intestine is open to discussion. The first symptoms however come from the infection of the blood. Internal antisepsis is confessedly a failure. With the possible exception of creosote in tuberculosis no method of internal antisepsis has a reasonable ground of acceptance. Abandoning the cause then as directly unassailable one applies himself to antagonize the first or the most prominent symptom, this is the pyrexia, the fever. The fever is attacked as fever and as a favorable soil for the action of the germ.

It is difficult to say exactly what fever is. It is not simply hyperexia, for this can come in health after vigorous exercise, emotion or digestion. A fever may exist with hyperexia, below the normal line. We have typhoids with subnormal temperature, and they must be classed as fevers. Liebermeister's idea that fever is a perturbation of the central temperature is perhaps the most satisfactory explanation, i. e., that in fever the internal temperature is constantly



changing beyond the normal curve. At one time it is 99, at another 102, 103 or 104 and then at 100, all during twenty-four hours. This presupposes the hypothesis that there is an internal regulating center and agents circulating in the body that act upon it and disturb it.

This constant change of the equilibrium and the occasional marked hyperexia is dangerous to the individual. The object of the cold bathing is to equalize the equilibrium and reduce the pyrexia. There are five fundamental indications; to support and stimulate the nervous system, to limit the infection to the blood, to favor the elimination of the poison, maintain the strength of the patient and prevent local complications, while reducing at the same time the temperature.

The nervous symptoms are affected by the cold affusions, the moist frictions and the cold immersions. increased tone of the nervous system preserves the integrity of all the tissue and increases their resistance to all deleterious influence and aids in preventing local injuries, and the development of local inflammations. absorption of the water aids elimination. increases until the amount of water passed increases to six or even eight pints daily. This excessive action of the kidneys carries off the rapidly increasing urea and product of destructive metamorphosis as well as poisonous elements. It dilutes all the fluids of the body, and the effect is seen especially in the mouth where sordes never accumulate, and the tongue is never dry, pharyngitis is unknown and the filth processes in the tubes and lungs reduced to a minimum; thirst disappears. Through the tonic effect the digestion improves and nutrition is more active.

Most vividly do I recall one instance where cold sponging had been used for two weeks in a vain attempt to combat the fever. The contest was uneven. Though the coldeven iced compresses were used and the cold sponging almost constantly employed, the temperature could not be reduced one degree and this reduction continued only 30 minutes. The temperature in spite of these refrigerating processes reached 106.

Food was rejected, stimulants were not retained, the

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heart was feeble. At this moment the cold bath was introduced. In the first bath the patient fainted, the respiration deepened, the pulse failed, the pupils dilated and the pallor of the face was deathly. After the bath there was no reduction of the temperature at 106, but the patient retained whiskey and food. In two hours the bath was repeated with no accident. An increased quantity of food was taken. In 24 hours the clinical picture had changed completely for the better.

The long continued hyperexia produces degeneration of many important vivera of the heart and brain and liver, necrosis of the cellular tissues with abscesses and local inflammatory changes, and consequently new infections, diarrhæa, pneumonia and the hemorrhagic diathesis.

It is clearly necessary in the treatment of the patient to combat this hyperthermic state with the most effective means. No antipyretics compare with cold water. None include so many advantages in their application. All except, perhaps, quinine have grave disadvantages. Nothing like the cold water used day and night during the continuance of the disease preserves the thermic equilibrium at a low level and so permits the proper functionation of the various organs in their normal condition.

Hydropathy is accused of being dangerous. The shock of the immersion is claimed to be too severe. The danger of fainting is cited. Pneumonia and pleurisy are said to be more frequent. Perforation of the bowel is apt to intervene. The statistics prove that these accusations are unfounded, and that the dangers are greatly exaggerated. In fact, the claim for cold baths is that complications, especially of the lung and bowels, are much less frequent. The shock is insignificant, and fainting very rare. Permanent chilling is almost impossible in properly regulated bathing. Accidents are practically unknown. There are counterindications and many conditions where the bathing must be conducted with unusual care and even suspended if it have no favorable effects.

In obesity, for instance, in alcoholics, the puerperal or pregnant state, old age, infancy, heart disease. Usually in such special instances the water is prepared warmer than

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68. In one instance of a mitral lesion I was able to follow the general formula of Brand without any modification as far as the heart was concerned.

Should complications arise it is but seldom that the baths should be omitted. It is impossible to discuss here all the complications that may arise—bronchitis and pulmonary hyperæmia, lobar and broncho-pneumonia, vomiting, diarrhæa, hemorrhages, perforation of the bowels, ulceration of the intestines, cerebral hyperæmia, laryngitis, boils and all the later developments and complications of the disease.

The bronchitis is undoubtedly diminished by an early application of the baths. In fact, complications are generally avoided. The later complications, especially pneumonia, of the latter part of the second week and beginning of the third week are less frequent.

The late pneumonias are due to the prolonged hyperexia and consequent degeneration of the blood and inhalation of vicious substances from the upper air passages and enfeeblement of the heart. These conditions are prevented by the cold water.

When pulmonary complications develop during the bathing the baths are not to be suspended. The sudden immersion excites coughing and expectoration, which is of value especially in the bronchitis and broncho-pneumonia. Even in typho-pneumonia, that is, pneumonia with grave constitutional symptoms but no intestinal lesions, bathing may be used. This is not however a general practice even with those who used the water in typhoid fever.

The appearance of the patient as treated by the water and the expectant or antiseptic or chemical method is vastly different. When systematic bathing is used the usual aspect of the typhoid patient is not to be seen. The florid icteric face with scarlet cheek and anxious restless eye and furrowed brow give way to a more sober and quiet mien. The invalid does not look like a typhoid patient. That characteristic visage so familiar to all is not seen. The trembling tongue is not noticed so often. Dry tongue, sordes, pharyngitis and thirst disappear. The wonderful relief to the patient of thirst is alone enough to recommend the bath. He rarely calls for water. The cracked, scaling,





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bleeding and black lips become soft, pliable and pink. The skin is no longer hot, dry and uncomfortable. In fact if any of the just mentioned irritations of the surface appear it is evident at once that the attendants have been derilect of duty and that a few baths have been omitted. This happens sometimes at night and the effect is observed in the morning visit of the physician. It constitutes a check in the course of the treatment.

The headache of the first week immediately diminishes and quickly disappears. Later on the nervousness, restlessness, insomnia and motor symptoms are decidedly under the control of the water. Delirium diminishes while the bath is in progress and often vanishes.

Immediately following the bath a sensation of comfort, refreshment and quiet pervades the patient and he falls into a gentle slumber that continues for one or two hours. This change is often seen in patients, where the baths are not introduced into the treatment until the end of the first week of the disease.

No one can see the restless, vigilant, agitated patient tossed about by the anxious brain and tired muscles every succeeding moment sink into a calm repose after a prolonged bath and thereafter doubt the beneficial effects of cold water.

THE CAUSES AND MECHANISM OF RETRO-FLEXION AND RETROVERSION OF THE UTERUS.*

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I shall not attempt now to cite all the possible direct and indirect factors which are concerned in the production of retroversion and retroflexions. I shall only try to classify them sufficiently to give you some clear idea on the subject.

Retroversion within certain limits and when only transitory may be physiological, and occurs every time that the Robb: Retroflexion and Retroversion of the Uterus. 499

bladder fills with urine. Retroflexion is rarely congenital, but if the cervix is of the normal size while the body of the uterus is smaller than normal then the natural position of such a uterus will be in retroflexion.

Retropositions, more especially if they are at all marked, are generally accompanied by a certain grade of descensus uteri, and the same causes which bring about this latter condition will consequently tend to produce backward displacement of the uterus.

The uterus being normally in a position of anteflexion and mobile equilibrium, a displacement must be due to a disturbance of the balance of the forces securing this equipoise.

Why should the healthy uterus preserve its position? In the first place the normal tonicity of the surrounding tissues resists any exaggerated movements of the uterus. The uterus is suspended, slung, as it were, in the broad ligaments which are narrower above and broader below. These resist any backward twisting which would cause them to change their form. The uterus is closely connected with the bladder in front by the utero-vesical ligament which leaves its anterior surface near the internal os. Below this point it is bound directly to the bladder by a connective tissue network. The bladder as it lies in the front part of the pelvis thus holds the uterus forwards. It will be remembered that the bladder does not assume a spherical form as the urine accumulates in it, but distends rather to the right and to the left of the uterus like saddle bags, so that if you pass a sound into a bladder containing six or eight ounces of urine, whereas in the median line it will enter for a distance of only 7 or 8 cm., it can be passed in the direction of the right or left upper angle for a distance of 9, 10 or even 11 cm. Most of the urine is thus pocketed, as it were, in front of the broad ligaments and against the sides of the uterus. Further distension of the bladder is often in the direction of the abdominal cavity so that more especially when its connections with the uterus are somewhat loose the viscus becomes an ovoid with its short axis between the symphysis and the promontory of the sacrum, and only in extreme distension is the body of



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the uterus forced far enough back to produce marked retroversion. The connection of the uterus with the bladder therefore is one of the most important means by which it is kept in its normal position. Posteriorly two arms reach out, one from either side of the sacrum and passing round the rectum grasp the cervix uteri and hold it well back in the pelvis. The anterior peritoneal reflexion is high up so that the pull on the fundus is altogether forwards, whereas the posterior reflexion of the peritoneum is low down in the cervical region. These guy ropes slung around the cervix are the utero-sacral ligaments. They contain important muscular fibres and are appropriately named retractores uteri. The other posterior connections of the uterus assist the action of the utero-sacral ligaments.

Distension of the lower bowel tends to force the cervix down and forwards in the pelvis, but the ligaments draw it back again as soon as the fœcal mass has passed. I should say here that fœces lodge rarely at a point between the ligaments. Occasionally masses are found above them, but the fœcal reservoir is just below this point. As the muscles of the abdomen contract the intestines are pressed upon. But behind we have muscles which are stiffened by the vertebral column, and which are unyielding. The diaphragm above is involuntarily fixed and supported by the lungs filled with air, which are supported in turn by the vaulted bony thorax. Below an intact pelvic floor and the bony pelvic walls catch the impulse of the intestines and throw them back.

Now, suppose that a single point is unprotected, and is incapable of offering a resistance equal to the pressure made on it. What will occur? At this point there is a slight giving way; the structure immediately behind yields to a like extent, and thus the first step in the formation of the hernia is brought about. You have all seen the effects of too strong intra-abdominal pressure over patulous inguinal rings and near the umbilicus. Here we have an analogous procedure.

The effects of sudden contraction of the abdominal walls in compressing the intestines and producing a displacement of the pelvic organs may be seen in the escape of fæces Robb: Retroflexion and Retroversion of the Uterus. 501

from the rectum, or the belching which is often noticed following the first contraction. The inferior part of the cylinder, at the anal outlet, is under the guard of special muscles, and simultaneously with the contraction of the abdominal walls these relax for the periodical expulsion of fæces. But before the fæces are driven out of the body by the contraction of the walls of the cylinder, as well as of the abdominal muscle, they have to pass along a canal which takes an oblique course. From the brim of the pelvis down the canal is guarded from displacement by its peculiar relations to the pelvic walls, but it is still within the reach of abdominal pressure as long as it lies above the point of union of the two halves of the levator ani muscle.

The effects of abdominal pressure were for so long a time so little appreciated that it is necessary to emphasize these facts, since they are of the utmost importance for the proper understanding of the mechanism by which retrodisplacements are produced. With every relaxation of the levators, and every rectal evacuation, a slight downward displacement of the uterus in the direction of the pelvic floor takes place. The displacement, however, is only slight, and is at once corrected by the elasticity of the uterine supports, which overcome it as soon as the pressure ceases; under normal circumstances, therefore, it is unaccompanied with any bad results. The force being transmitted by the intestines, the latter press down upon the upper posterior surface of the uterus, forcing it into a position of more pronounced anteversion; the cervix being out of the direct line of pressure is displaced less than the fundus; if no anteflexion is present it may be produced in this way, and any slight flexion which exists will be increased.

A normal vaginal outlet is not to be looked upon as a weak point which would have any tendency to yield, for you must remember it is placed well forward, hugged up tightly under the pubic arch, where it enters the pelvis piercing the floor not straight but obliquely. The normal outlet is so tightly closed that it is only a slit in the pelvic floor and one that is thrown eccentrically forward out of the direct line of pressure.

Understanding then the effect of intra-abdominal pres-





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sure upon the normal uterus, let us inquire what effect it would have upon a uterus, which from some cause or other. has been displaced backwards to a slight degree. The pressure now is exerted on the fundus and the anterior surface, and consequently the backward displacement is increased; and the more the posterior surface is forced down towards the pelvic floor, the greater becomes the mechanical disadvantage at which the uterus is placed with reference to the future recovery of its normal position, since every act of abdominal pressure tends only to exaggerate the mischief. Thus the same force which under normal conditions is wholesome and necessary, at another time when the conditions have been changed, can become hurtful.

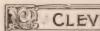
The explanation just given will clear up much that is puzzling as to the mechanism of retroflexions. You must not, however, suppose that this mechanical explanation is all-sufficient; if it were, the cure of all retroflexions would be absolutely simple. We should take a sound and turn the uterus forwards upon the bladder until it was in a position of anteflexion, after which the abdominal pressure would once more be exercised upon the posterior surface. But another factor comes into consideration. With or rather before the displacement, something has been lost; the tonicity of the surrounding tissues has been interfered with so that the anatomical relations of the uterus to the broad ligaments the bladder and rectum no longer have their proper value, and the uterus tends to fall backwards under the simple action of gravity. Once in this position there is nothing to bring it back. Nothing tends to put the malposed uterus back into its place; everything conspires to make an incipient mal-position worse. Intra-abdominal pressure is now acting disadvantageously for the uterus, because the anterior instead of the posterior surface is exposed to its force.

What is it that brings about this first step? A want of tone in the suspensory structures is commonly the ultimate cause of displacements. If the surrounding parts were not too lax or too rigid, simple re-position would always effect a cure, since the tonic elasticity and contractile powers of

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the peritoneal and of the connective and muscular tissues would hold the uterus in its proper place. This want of tone is usually the consequence of over-stretching, repeated excessive straining, too great pressure long continued, and lastly to changes resulting from inflammatory processes. To sum up, then, in the causation of backward displacements of the uterus, other than the congenital variety mentioned above, one or more of the following factors may be concerned.

- (1) Congenital defects. A short vagina necessitates a forward position of the cervix; this tends to bring the fundus and anterior surface of the uterus under the direct line of abdominal pressure. The ordinary distension of the bladder, which as a rule slightly elevates the fundus, now throws it backward, thus causing a displacement. A congenitally long cervix cannot rest with its long axis crossing that of the vagina, but must accommodate itself to the axis of the vagina; this also tends to throw the fundus backwards. Where the cervix is long, the body of the uterus is apt to be small and short. In such cases which show a persistence of the fætal type the normal position of the uterus is as I said above, in retroversion.
- (2) Extreme distension of the bladder throws the fundus far back in the pelvis behind the median line. When this happens often the malposition is liable to continue.
- (3) Impacted fæces in the rectum extending up above the ampulla push the cervix down in the vagina, and thus change an anteversion into a retroversion.
- (4) A sudden severe strain put upon the abdominal muscles, especially when the bladder is full, brings about a retroflexion by forcing the uterus down when the pelvic floor yields.
- (5) Of all causes of retropositions by far the most frequent is a relaxation of the vaginal outlet; the relaxed outlet must be looked upon as a deficiency in the pelvic floor, which leaves a smaller or larger surface over which no counter-resistance to the intra-abdominal pressure remains. Every act accompanied by intra-abdominal pressure tends to thrust out the adjacent vaginal walls; when these have once entered the orifice they continue to be forced down,





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wedging the posterior walls further away from the symphysis. While the parts below thus give way, the uterus itself vields and, dropping down, is forced towards the outlet. On account of the attachment of the cervix to the vault of the vagina the effect is first felt at the cervical end: with each strain the uterus sinks down, and as there is no pelvic floor to resist, it never fully returns to its original position. As the cervix thus drops, swinging down towards the outlet, the opposite pole, the fundus, rotates so far back that the force of the pressure, which falls at first directly upon the fundus, is finally spent upon the anterior surface of the uterus, and complete retroversion or retroflexion is established. A prolapsus, in which the fundus has escaped first, would be impossible without a previous perforation of the anterior vaginal wall and the bladder by the fundus. travelling towards the outlet the vaginal cervix acts as a guide, which is followed by the uterine body. The cervix, resting upon the posterior vaginal wall, slides along it in the only direction in which it can possibly move towards the outlet; as it slips further and further down, the vagina and uterus follow; when the tonicity of the pelvic floor is gone it no longer returns the uterus to its original position, and the latter drops lower and lower until it emerges at the outlet; in the case of a heavy or sub-involuted uterus these changes occur with still greater rapidity.

A large lacerated infiltrated cervix so weighs down the inferior pole of the uterus as to disturb the nice balance of equilibrium, thus rendering more frequent the occurrence of displacements.

(6) Finally retroversion and retroflexion may be caused by inflammatory changes in the uterine supports or by the dragging of adhesions resulting from a pelvic peritonitis. It can be well understood that when once adhesions have occurred even if the normal tonicity of the uterine supports could be regained the mischief would have gone too far to allow them to act properly. As a matter of fact a vicious circle has been formed and all the mechanical forces which tend to keep the uterus in equilibrium are now being employed in drawing it still further from its normal position.





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In this connection retro-deviations of the pregnant uterus must be treated of separately. It was long believed and taught that retroversions and retroflexions of the gravid uterus were brought about by similar causes. text-book Schreder says "Retroversion is near akin to Retroflexion." Chrobak has strenuously opposed this view and holds that a retroverted pregnant uterus must always be replaced, whereas a retroflexed pregnant uterus generally regains its proper position spontaneously. According to him therefore the treatment is entirely different and it is very important to distinguish between the two conditions since retroversion must be regarded as a very serious complication in pregnancy. Gottschalk supports this latter view, and in an article in the Archiv fur Gynacologie, Vol. XLVI, part 2, declares that a sharp distinction between the two conditions is necessary, since a certain number of the retroversions met with in pregnancy are brought about by etiological factors quite different from those which are the cause of flexions and versions in the non-pregnant uterus. He denies that retroversion of the gravid uterus must always have existed before pregnancy, even though this may be true for retroflexions. Chrobak had inclined to the same opinion, although he confessed that the statement that the mechanism of retroversion of the gravid uterus was much more complicated than that of retroflexion had not been definitely proved.

Pathological anatomy has not been of much assistance here, since it is well known that in the cadaver the uterus is often found retroverted, when in life it had occupied a normal position. Indeed, it was this circumstance which led Henke to put forward the erroneous opinion that the normal position of the uterus was in retroversion.

In view of these facts, Gottschalk quotes at length the cause of a patient who died in the fourth month of pregnancy from obstruction of the bowels, the important point lying in the fact that, after she had become pregnant, frequent examinations had shown that the uterus was in a position of anteversion. She had borne a living child a year before, and after her last labor Gottschalk had found the left horn of the uterus adherent to the anterior surface of the



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CLEVELAND MEDICAL GAZETTE



HOLLIDAY: Inaugural Remarks,

sacrum, so that there was a certain amount of immobility on the left side. Gradually there came about a slight twisting round the left horn, which Gottschalk observed just before her last pregnancy. The patient had gone on to the fourth month, and had done very well. After being obstinately constipated, and having had no stool for eight days, she nevertheless did her housework up till midday. The same afternoon she was taken violently ill, and sank in the evening into a condition of collapse. Cœliotomy, and later colotomy, were performed, but she died in a few hours. When the abdomen was opened the point of obstruction was found to be in the sigmoid flexure, and to be due to the twisting of the bowel. The uterus was strongly retroverted, and had been forced into the right half of the pelvis. The tissues were afterwards carefully examined, and from the difference in the growth of the different layers of muscles, Gottschalk holds that the retroversion had not taken place suddenly as a result of the weight of an overfull bowel, but that the gradually increasing grade of torsion, which took place as the pregnant uterus increased in size must be considered as the main factor in the production of the retroversion.

From this case, therefore, he concludes that the mechanism bringing about a retroversion be considered as quite complicated where the pregnant uterus is concerned.

The question is certainly of great interest, and is deserving of still further study.

INAUGURAL REMARKS.*

BY B. W. HOLLIDAY, M. D., CLEVELAND, O.

I suppose it is both fitting and customary that the recipient of such an honor as you have entrusted to me should preface its exercise by an appropriate acknowledgment; that this may be expanded into an inaugural exposition, from one's own point of view, of any germane topic of interest; but that any expression, if retrospective, must be neither too flattering nor too critical, and if prospective,

*Delivered by the President-elect to the Medico-Legal Section of the Cuyahoga Co. Medical Society.



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should convey the truth as near as possible, not minding especially whether it's the whole truth or nothing but the truth.

Now, I confess I tried to develop this ideal on paper at the earliest opportunity. But the written product seemed, on due reflection, to be too long, too pretty (!) and unpractical, and was accordingly condemned to the pot-boiler's flame. I rather sympathized with and acted upon the conclusion of the plantation preacher in discussing negatively whether "De Pen am mightier dan Powder." He said: "Powder don't need no 'splainin'; powder 'splains itself."

A pertinent question or two suggest themselves, and their proper answer is more than sufficient theme for me to bore you with:

Has this society a reasonable excuse for its existence? Is it being sustained as it should be, and are we all earnest enough to make its future auspicious?

For my own part, I say yes to the first question, and leave the second one for silent and mutual reflection. This answer is well grounded were I guided only by the enjoyment I have experienced in the instruction and entertainment afforded at these meetings during the past year. The latter admission you will agree with me in asserting, has been in no small degree due to the able and enthusiastic leadership of my predecessor, Judge Noble. From this statement alone you may guess my embarassment in undertaking to meet your complimentary confidence. At the start then I invoke both your patience and your aid. And in the end I trust the outcome will be no worse at least than the experience of the little boy who got threshed for falling off the wood-shed roof. He said he "had a good time anyhow!"

I believe the scope of a society like this is, as a rule, underestimated. It is not entirely limited by the index of an ordinary text book on Medical Jurisprudence, wide and difficult as are some of the questions there outlined. Many old problems are unsolved. New and equally difficult ones are continually arising. The philosophically curious minded need only scan his morning paper to give him food for the soundest and most acute reflection daily. To enumerate



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would only be tedious. What is settled with mathematical certainty in those abstruse subjects, Psychology, Metaphysics and Sociology? Yet they are every-day tools of learned men, or else objects of their modification and supposed improvement. Is it any wonder that poppycock dilettantism finds a favorable soil in medicine, and that possibly some moss grown and barbaric usages still cling to law?

Take it within the memories of some of us, a third of a century or more back, has our boasted increased comforts through mechanical, commercial and educational improvements been followed by greater social contentment and that mental ease so essential to health and peace? Lawyers and doctors know better, let the optimist say what he will. Is there not a meaning in this which cannot escape the province of our discussion as a medico-legal society, a "something rotten in Denmark," to remedy which invites more than wistful spectatorship on the part of all organized intelligence.

Is crime lessening withal? Notif so good an authority as ex-president and ex-minister Andrew D. White can be trustingly listened to. His recent address in Boston on "The Problem of High Crime in the United States" is full of startling statements, and anything but flattering to this country. Whence comes this? Degenerate morals is the immediate answer. But what influences are responsible for the morals? Are race, or religion, or irreligion the guilty factors? These are disputable questions, and within the scope of this society. The discussion of race influence is on our regular programme for this evening, and I am sure we will all be interested in the paper of Mr. Skeels on that subject.

The truth is, gentlemen, the ancient so-called learned professions, law, medicine and theology, are so interrelated in history making, society-doing and undoing, that the thinking members of either profession cannot afford to ignore the other. The scholastic monks of the 13th century are not to be derided out of the thought world. Roger Bacon did considerable thinking for Francis, 350 years later on. And the "Summa Theologiæ" of Thomas Aquinas is by no means lost on the present era. Law, as in the days of Cicero, still

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holds its honorable position. The insignia of medicine is no longer a barber pole or a Roman slave scar. A medico-legal fellowship can be a very pleasant and profitable one, not like the school boy bed-fellowship, where each one wanted his half of the bed to be diagonally out of the middle.

Assuming to speak for the medical members of this society, I cannot too warmly thank the legal gentlemen for the enlivening interest they have taken in these meetings during the past year. We earnestly plead for a continuance of your heartiest aidance in the future, and bespeak for it a mutually agreeable and useful resultant.

LIMITATIONS OF THE STANDARD OF MODERN EDUCATIONAL REQUIREMENTS AS DETERMINED BY STATE EXAMINING BOARDS.

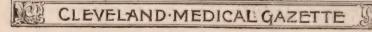
BY JOSEPH M. MATHEWS, M. D.

President State Board of Health of Kentucky, Professor Surgery Kentucky School of Medicine, etc.

INTRODUCTION:

In assuming to address so learned a body of men as composes this Association, I must confess to a feeling of some diffidence.

Were it not for the assurance that whatever may be our differences in opinion, we are all laboring to accomplish the same end, I would have hesitated in accepting the kind invitation of your worthy President to address this body. Eighteen years of continuous labor as a teacher in medical colleges, has served to make me familiar with some things concerning medical education which can only be gleaned by experience. Only those who have been thrown face to face with the many issues and problems that this subject presents, can imagine the many difficulties that are continually presenting, and how difficult they are to overcome. The medical profession of America has much to be proud of in its rapid advance in this matter. Within the memory of many here, the successful doctor was not graded by a collegiate, or medical education, but rather by his power of



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adaptability to the masses, without reference to education, or I might say ability at all. Armed with the lancet, purgative, emetic, and an anodyne, he was accounted greatest who could bleed, purge, vomit, or put to sleep the quickest.

What a few years can accomplish by a well directed effort, is shown here to-day, when we meet in council to urge as a requirement to graduation in medicine "a preliminary education equal to a high school course, four years medical attendance, collegiate training, and a separate state examination for license after graduation."

Shades of the departed! what would you say to this? If the memory of those present can turn back to these crude days, and efforts in medicine, it will not require a great flight of memory to take them back to the days when to procure a diploma from a reputable medical college, was a thing of ease, and of but few days of trouble. No portion of the country either can be exempted in this declaration. The North and East, vied with the West and South, as to how little real medical training was necessary to make a full fledged doctor or graduate. Times have changed, most woefully changed-for the student. Four years? Why a decade ago, nine months, and not full months either, seemed quite sufficient to educate one to the simple task of practicing medicine, at least by some colleges. Why the change? I believe the solution can be easily reached. There was a commercial aspect to medical teaching in those days, born and bred, of opposition, and contention. Quantity and not quality, was the rule. Even medical men became unscrupulous; the cut rate system was indulged in, and to such an extent that students were actually inveigled into medical colleges under misapprehension and misrepresentation. At last, however, the reaction came, and medical teachers realized that such conduct was reprehensible, and degraded the honored profession to which they belonged. That the wholesale turning out of illiterate students to practice medicine was a calamity which threatened the health and lives of the people, and a halt was called. would not be candid if I did not admit that much of this reformation was due to the efforts, and suggestion, of the



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different state boards of health, and latterly to the state examining boards.

REQUIREMENTS.

It is suggested that the requirements be "A preliminary education equal to a high school course, four years medical, collegiate training, and a separate state examination for license after graduation." To preface, permit me to say, that I am heartily in favor of any just move that looks to a higher medical education, to a broadening of medical thought, and an elevation of the dignity of the medical profession. But what are to be the limitations of the standard of modern educational requirements, as determined by the state examining boards? We are quite familiar with said requirements up to date, but when are we to call a halt, or advance? Have we reached the acme yet, or are we to require more? Or have we not already gone beyond a reasonable point in such requirements? I take it that this meeting is for an interchange of thought in regard to this whole matter, and should we at any time differ, that no offense is given thereby. Sure we are of one thing, that we all desire to know and do the right. Every teacher of medicine will bear me out in the assertion, that many times the student of two years' attendance in a medical college can outstrip the four-year man with ease to the finish. That the country born lad, who has had the advantage only of a log cabin education, will win the honors in his class over his city cousin, who has received a collegiate education. This can be said of all professions and avocations. I know a chief justice of the supreme court, in one of the states in the Union, who was never in a college in his life, but is recognized as being one of the ablest jurists and lawyers in the Union. It might be said that these are exceptional cases. I grant it, and do not be wished to be understood as conveying any other impression. They are only cited to enable me to ask the question, what is to be the gage, and who are to be the judges in this matter? You say our requirements now represent the minimum. Let us for a moment notice them. "A preliminary education equal to a high school course." Who is to judge whether the applicant has an education equal to a high school course? I suppose this duty would devolve upon the dean of the col-



lege, or a committee appointed for this purpose. No reflection is meant when I say that many of us would not prove competent judges. If your requirement said a diploma from a high school, it would be more definite. Even then it must be admitted that sometimes men, who are not proficient, are granted diplomas even by a literary college. Take either suggestion that you please, then I would ask, are we to apply this same rule equally to all states in the Union, and to all sections of the country? It must be remembered that several decades ago this country was involved in a civil war, that one portion of it was devastated, including all of the school houses, that its people were reduced to poverty, and that even until to-day full recuperation has not been accomplished. That in another part of the country the masses are educated, and many colleges are endowed because of the wealth of its citizens. Are we to make the same standard apply to a section of country which has but few, or if any, high school to a section which knows nothing less than high school, and where education is cheap? We have a section in my state, known as the mountain country, which covers a great area, and yet there is not a single high school within its borders. Nevertheless our cities contain able lawyers, physicians, business men, etc., who hail from that district. Lincoln received his education from just such surroundings. In plain words, would not the medical profession lose a great deal of most excellent material if we hewed to the line in this requirement?

Second.—" A four years' study in a recognized medical college."

We must all be heartily in favor of the clause, and the only objection that could be urged to it, is that there are a few most excellent young men, who would be prevented from graduating, because of the necessary funds. However the advantages gained by such a requirement outweigh all such arguments.

THIRD.—"Examination and license by a state board, none of whose members are teachers in a medical college."

Having been raised a democrat, living on the border line, I have all my life been imbued with the idea of "state rights." I must confess however, that once upon a time, our

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opinion in regard to these rights, got us into serious difficulty. Having had also something to do with politics during my life, I am fully persuaded that politicians need watching. I trust that it will not be out of place to say, that, in this matter of the state taking a hand in medical education, and license, the political aspect of it should be watched. I have also heard it hinted, that in some instances, doctors have proved to be most excellent politicians. This State Board of Examiners has to be appointed by the State, so let us at least keep an eye on the State. With all deference, I cannot understand why the provision is made that none of the members of said examining board shall be teachers in a medical college. In my judgment teachers in a medical college are the better judges of this whole matter, more than any other class of men. Experience, observation, and the handling of medical students, has made them so.

EXAMINATIONS.

It must be admitted that the curriculum of a medical college is very different to-day, from what it was when the major portion of this Association graduated. Instead of a routine of didactic lectures, with but few clinics, we have now most of the instruction given in a clinical way, with great laboratory work. Too much credit cannot be given to this manner of teaching. But in all candor, let us contemplate whether or not the great principles, the positive deductions, and the common sense application of the same, are not sometimes neglected, to give place to theoretical problems that are not proven, and much minutiæ. Hard common sense, clinical observation, and experience, are as necessary features in the practice of medicine, as the knowledge of the part that the stapholococcus, or streptococcus play in the production of the germ theory of disease. Let us then in these examinations by the State Examining Boards, have many plain common sense questions, without embellishment, with things that are not absolutely necessary. In looking over a list of the examination papers used by one of the state board of health a short time ago, I really wondered if all members of said board could answer them sufficiently well to obtain the average, to warrant the issuing of a diploma to them, if they did not possess one.



Sure I am that I know many excellent practitioners of medicine, and able surgeons, who would have been stumped by such an examination.

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Shall we say that the same standard shall be maintained by each examining board, for good and sufficient reason, some of which have already been mentioned, this would be impracticable. Then if each examining board has not the same standard, what are we going to do by way of courtesy, or demand? All honor to the great State of New York, for taking the most advanced step in the way of requirements.

But suppose a physician, who has passed all the requirements of the colleges, state board of health, and examining board of Kentucky, desires to move to the City of New York, and practice his profession. Or perhaps he is called to fill a chair in one of their noted medical schools, as was the case in the calling of the elder Gross, Austin Flint, V. P. Gibney, and others. Are they to be turned back, and down?

CO-OPERATION.

The state examining boards, must in order to succeed, have the affiliation, and full co-operation of the state boards of health, medical colleges, medical college associations, medical press, medical profession, and we may add the lay press, and the people at large, for they are powerful allies, or foes. It cannot be doubted, but that we have the sympathy, and encouragement, of the State Boards of Health, medical press, of some medical colleges, and a partial, if not full endorsement of the College Association. Let us strive to show medical teachers, that the examining boards, mean no reflection upon their honor, integrity or capacity, but rather intend to lift from them, much that now proves laborious. Let us convince the College Associations that we are not trying to usurp any power over them, but rather to help them accomplish the great reformation proposed. To the daily press, and the laity, let us argue and beseech, that our efforts are not to trample upon the rights of people, but to protect in that great hour of affliction, and death. Let us therefore go slowly, that we may make sure progress, and that men may rise up and call us blessed.

THE AMERICAN MEDICAL ASSOCIATION.

The American Medical Association with its twelve sections held a successful meeting at Atlanta, beginning on May 5. The attendance was not very large, but the programme compared favorably with the forty-six that have

gone before it.

DR. Cole, in his address as retiring president, attacked the tendency towards commercialism which is a constant menace to the attainment of the highest ideals in the profession. This is shown in the evasion of established requirements in medical colleges, cheap insurance examinations and the countenancing and adoption of proprietary methods in the profession. He also advocated restrictions on the importation of unqualified graduates of foreign schools, who, having failed to pass the state examination at home, are accorded full privileges here.

DR. OSLER, in his address on Fevers in the South, favored his hearers with a vigorous arraignment of the claims and methods of the advocates of intestinal antiseptics in typhoid, announcing himself as "abandoned to cold water

practices."

DR. SENN gave a resume of the present status of surgery and hints as to what may and what may not be looked for in future progress. The pseudo-gynecologist with the furor operations received a good share of attention, as he had also in the president's address.

The address on State Medicine, by Dr. Rohe, has especial present interest for Cleveland readers. It dwelt largely on the methods and results of sand filtration, with the conclusion that this must be regarded as the most efficient method of purifying a polluted water supply.

In contrast with the high moral and scientific standards of the addresses in general session, the petty political methods which characterize some of its business proceedings

are irritatingly conspicuous.

Action was taken respecting the exclusion of English from the list of official languages at the coming Moscow congress, although it had been previously announced that the committee of the congress had rescinded its decision. The meeting was considered very harmonious, as there was no fight excepting over the office of secretary, and that was expected. It's a chronic affair with annual exacerbations.

The sectional programs were well filled, both as to quan-

tity and quality.

The Jenner Centenary Celebration succeeded in surviving the attempted smothering process, and the program



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included both historical reviews and presentation of recent scientific investigation and theories as to immunity in variola.

Numerous other societies met at or about the same time and place. There were the American Academy of Medicine, the Medical Editors' Association, the Medical Publishers Association, the Association of American Medical Colleges, the Georgia Pharmaceutical Association, the Confederation of State Examining and Licensing Boards.

The Academy of Medicine, in pursuance of its plan of throwing the weight of its influence in some predetermined direction, devoted a good part of its program to a discussion of methods in medical teaching, in joint session with the Confederation of Examining Boards and the Association of

American Medical Colleges.

The Academy, as well as the American Medical Association and the Association of Medical colleges, adopted resolutions strongly protesting against proposed action to prohibit experiments on animals in the District of Columbia.

The whole city opened its arms to receive these various distinguished bodies, collectively and individually. The local committee of arrangements did its work efficiently and the citizens entertained royally.

The following officers were elected for the coming

year:

President, Dr. Nicholas Senn, of Milwaukee; first vice president, Dr. George M. Sternberg, of Washington, D. C.; second vice president, Dr. Edmond Souchow, of Louisiana; third vice president, Dr. D. J. Thomas, of Pennsylvania; fourth vice president, Dr. W. F. Westmoreland, of Georgia; treasurer, H. P. Newman; assistant secretary, Dr. T. F. Sneidman, of Pennsylvania; librarian, Dr. George W. Webster, of Illinois; chairman of committee of arrangements, Dr. H. A. Hare, of Pennsylvania; trustee to fill vacancy, Dr. C. C. Savage, of Tennessee; trustees, Dr. E. E. Montgomery, Dr. J. M. Matthews, of Kentucky; Dr. A. L. Reed, of Ohio; judicial council, Dr. George W. Stoner, United States marine hospital service; Dr. C. W. Foster, of Maine; Dr. J. McF. Gaston, of Georgia; Dr. I. N. Snimby, of New Jersey; Dr. H. Brown, Dr. X. C. Scott, of Ohio.

The next meeting, the semi-centennial anniversary of the organization of the association, will be held at Philadelphia, beginning on the second Tuesday in June, 1897.

THE OHIO STATE MEDICAL SOCIETY.

The Ohio State Medical Society held a large and successful meeting at Columbus on May 27th, 28th and 29th. The program was published in the last number of the GAZETTE. The place of meeting was the hall of representatives. Dr. Dan Millikin proved an able president. Dr. Thomas Hubbard has lost none of his efficiency as secretary. In the absence of the mayor the address of welcome was

delivered by Director of Law Bargar.

The report of the secretary showed that the total number of active permanent members has more than doubled since 1893. There are now 883 permanent and life members. The yearly distribution of transactions amounts to about 900, including exchanges, and since those who do not pay dues receive no copies, this is evidence that the financial management of the society is good, and that the list is not swelled by delinquents. The number of auxiliary societies remains about the same. There are 46 which maintain an active affiliation with the state society. A number are applying this year. These are the Cleveland Medical Society, the Branson Medical Society of Morgan county, the Lucas County Medical Society, Perry County Medical Society, the Lorain County Medical Society, the Medical Society of Ashtabula, Geauga and Lake counties, and the Lawrence County Medical Society.

It would be desirable to have certain modifications of the provisions for election of auxiliary societies. An amendment to the constitution should be made to the effect that applications to become auxiliary should be filed with the secretary at least a month prior to the date of the meeting, and a list of societies applying be published on the annual program. The secretary's list has increased from 2,000 in 1893 to about 3,400, more than one-half of the total number

of physicians in the state claiming to be regulars.

The efforts of Dr. X. C. Scott to prevent the admission of the Cleveland Medical Society to the state organization proved unavailing. The society took a very active part in

the proceedings.

The election of officers for the ensuing year resulted as follows: President, Dr. F. C. Larimore, Mt. Vernon; vice-president, Drs. M. Stamm, Fremont; C. F. Clarke, Columbus; John S. Beck, Dayton; G. W. Crile, Cleveland; secretaries, Drs. Thomas Hubbard, Toledo; H. M. W. Moore, Columbus; treasurer, Dr. James A. Duncan, Toledo.

Dr. Tuckerman was appointed a committee to visit Washington to influence legislation in the interests of vivi-

section.

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The next place of meeting will be Cleveland, and the time the third week in May, beginning as usual on Wednesday.

The Committee of Arrangements is Drs. W. H. Humiston, A. R. Baker, A. F. House, J. F. Hobson and J. E. Cook.

CLEVELAND MEDICAL SOCIETY.

At a recent meeting of the Cleveland Medical Society Dr. Wm. Lincoln read a most valuable paper, which we quote in full, with the discussions thereon by Drs. Smith and Straight. The following is the paper:

THE COMPLICATIONS OF PURULENT OTITIS MEDIA.*

BY WM. LINCOLN, M. D.

Instructor in Rhinology, Otology and Laryngology in Western Reserve University.

Before considering the complications of purulent *otitis media* let me call attention briefly but with emphasis to the uncomplicated form of the disease, and for the purpose merely of insisting upon the importance of the early and thorough treatment of pus in the ear in order, if possible, to prevent these later and graver consequences.

For no reason, either because of a great respect for the old and widespread superstition that to check a running ear is to drive the pus to the lungs or brain, or because we may think that a freely discharging ear is in the best possible condition for the relief of the inflammation, should we allow a purulent otitis media to progress to either a bad or a good result without attention. In other words, pus-collection and discharge in and from the ear should receive not less and later but greater and earlier attention than an abscess in other parts of the body, for the reason that it is less liable to get well without such attention, and also because the consequences of neglect are, in the general run of cases, more disastrous. In no class of cases does a patient suffer more or longer from inattention or from a mistaken conservatism of his physician.

Whether it is advisable to treat the diseased ear by the dry method or by syringing, or by the instillation of antiseptics and caustics, or by operation, I cannot undertake to say, for, to my mind, it is a mistake to pin our faith to one form of treatment when all those recommended have a value, at least in some cases. I wish merely to insist that by cleansing, and by applying appropriate antiseptics, or by operating, we may consistently try to cure the purulent condition before the complications of suppur-



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ative otitis media appear. These are too numerous and their importance too considerable to allow of the consideration in detail of the entire subject in a paper brought within the limits required by this society. With a passing mention, then, of the more frequent sequelæ and accompaniments of purulent middle-ear disease. I will consider more fully three complications which

ear disease, I will consider more fully three complications which, though fortunately of rarer occurrence, are the most serious and dangerous of these complications, namely: cerebral and cerebellar abscess, septic thrombosis, causing pyemia and meningitis.

While the middle ear is in a state of acute inflammation with no perforation of the tympanic membrane, or with one insufficient to carry off the products of this condition, the mastoid cells and antrum are in danger of being made the receptacle of this discharge, and in like manner obstructed discharges of a chronic inflammation gravitate to these parts. The recognition of mastoiditis is not difficult, and its treatment must be energetic. Thorough opening of these bony cavities must quickly follow the failure of treatment by leeches, paracentesis and the application of cold.

Long continued iuflammation of the tympanum causes, in other cases, caries and necrosis of its walls or its bony contents, and this process, too, may involve the mastoid region. When, by means of the probe, or because of the long-continued and intermittent discharge our diagnosis is made, and the disease does not yield to local treatment by antiseptics, we must proceed to operate, either by excision of the carious ossicles or by the removal of the sequestra from the tympanic walls or mastoid process. For this purpose our best method is probably Stacke's operation, or one of its modifications, and consists of thoroughly exposing the tympanum, attic, and mastoid antrum, and leaving them connected and exposed to drainage through the external auditory meatus as one cavity, and at the same time carefully cleaning out all carious ossicles and necrotic spots in tympanum and mastoid.

Granulations and polypi arise often in the course of purulent middle-ear disease to complicate the case. Polypi of the mucous type are probably comparatively rare, and these tumors are generally granulations with an amount of connective tissue varying with their duration. They are generally easy of removal, but their recurrence is only prevented by thorough treatment of their cause, i. e., of the chronic suppuration.

Cholesteatoma, collection and impaction of epithelial debris mixed with cholesterin, acts as a foreign body, and needs re-

moval before we can cure the case.

Facial paralysis, generally the results of necrotic erosion of the thin bony canal containing this nerve situated on the inner and posterior wall of the tympanum, and subsequent pressure upon the nerve-trunk, or inflammation of its fibers, has been often observed and reported. The prognosis will depend on the amount and permanency of the damage suffered by the nerve.

Other complications due more or less directly to suppurative otitis media may be mentioned in passing, hemorrhage from

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the internal carotid artery on account of necrotic destruction of its bony wall in the ear and ulceration of its coat; general pyemia with multiple abscess in the liver and elsewhere; amyloid degeneration due to prolonged suppuration. Good authorities consider that malignant disease is especially liable to affect an ear weakened by constant and long-standing suppuration.

Of the three complications which I desire especially to consider in this paper it is probable, from statistics, that abscess, either cerebral or cerebellar, is slightly more frequent than the other two, but it must be said that in a great number of cases two or even three of these troubles occur together. Meningitis may result from the acute form of suppurative otitis media, but is more frequently a consequence of the chronic form with bonenecrosis, and this latter form may be considered as always the causative factor in brain-abscess and sinus-thrombosis dependent on ear diseases.

The path for the extension of suppuration to the brain or its meninges or to the sinuses from the ear is generally directly through disease of bone, and for this reason in necropsies of cases of this kind the collection of pus has, in the great majority of cases, been found in that part of the temporosphenoidal lobe of the brain lying over the tympanum, or extradural in the same vicinity. Other means of communication between the tympanic cavity and the brain and its meninges exist, for instance vessels and nerves and processes of fibrous tissue extending towards the tympanum through its roof.

An early differential diagnosis between these lesions of the brain is obviously important, and to that we may devote the remainder of this paper, leaving the treatment, which must be

active and heroic, in the hands of the general surgeon.

Abscess symptoms may last from a few days to several months. In a patient the subject of an old suppurative otitis media the following train of symptoms should make us strongly suspect the existence of a collection of pus in the brain. An increasing irritability and restlessness, a dulled intellect, headache usually of a sharp and lancinating character, drowsiness, vomiting without apparant cause, emaciation, and in final stages convulsion and delirium. Very slight chill may be present, but real rigors indicate the presence also of septic thrombosis. An important symptom, if present, is aphasia, produced probably by destruction of the auditory centers in the temporosphenoidal lobe and consequent word-blindness. many cases failure of memory has been noted. Paresis or tremors also aid us, by their character and site, to come to a diagnosis, of some lesion affecting the motor area or motor nerve-trunks. Optic neuritis is not a symptom often seen in abscess of the brain but may occur, more particularly in cerebellar abscess.

It must be remembered that many of the symptoms outlined are present in case of brain tumor without the presence of puscollection, as has lately been commented upon by Burnett*, and

^{*}University Med. Mag. Vol. VIII, No. 6, p. 422.

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this author cites two cases under the care of continental observers in which the existence of some of these symptoms, accompanied by old suppurative otitis media led the observer to operate for otitic cerebral abscess, when the necropsy revealed tumors of the cerebrum and cerebellum. In such cases Burnett points out that we should be able to come to a correct diagnosis between abscess and tumor of the brain chiefly by means of the longer duration of the symptoms of tumor, and also that choked disk leads us to suspect tumor or phlebitis, especially if interfering with the circulation in the cavernous sinus or ophthalmic veins. Slight rise of temperature has been noticed at times in the course of an otitic brain abscess, but much more frequently normal or even subnormal temperature is present. A rise of temperature should lead us to at once suspect the occurrence of meningitis.

As to the ear itself, we would be likely to have the history of the stoppage of an old purulent discharge some time previously, attributable to cold, trauma, foreign body, (cotton), etc., or possibly through an operation for removal of polypi or ossicles. This acute process causes a swelling of the mucosa, damming back the discharge, and by septic inflammation of the petrous or mastoid bones and their contents gives rise not only to abscess but also to either or both of the other brain lesions of

ear-disease, namely, meningitis or sinus thrombosis.

Locally, pain on palpation is present when the pus is confined under tension in the bony parts adjacent to the brain, but as a symptom of abscess itself it is not to be relied upon. site of these pus-collections is, in the great majority of cases, as pointed out by Pitt* in an able review of the whole subject, in the temporosphenoidal lobe and close to the roof of the tympanum; and in addition to the abscess in this locality there is nearly always a localized slough of the dura mater over the same site. Localized collections of pus have been found both subdural and in contact with the inner meningeal surface, and also imbedded in the brain substance, separated from the pia mater by strata of sound brain-substance of varying thickness. This difference is, I presume, to be accounted for by the fact that the abscesses lying in close juxtaposition to the diseased bone have as a cause the spread of the septic process directly from necrosed bone and from sloughing membrane, while those more remote are probably caused by infecting material carried along the vessels or perivascular lymph channels. And secondary abscesses reported to have been found in certain cases, as well as those found in unusual sites, have probably a like indirect etiology.

The view held by Toynbee that the brain complications of purulent otitis media can be diagnosticated as to their location from the part of the ear or mastoid process affected, has not proved true according to the investigation of later writers.

Sinus Thrombosis. An embolus carried to one of the sinuses of the skull, generally the lateral, causes a thrombosis of

^{*}Br. Med. Journai. Mar. 22 and April 5, 1889.





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that sinus, and, coming from a field of purulent material in the ear or from an already existing abscess of the brain, it is generally septic and causes a septic thrombosis, which, in turn, infects more distant organs.

In a large proportion of the cases reported when necropsies have followed, the disease has been found to depend on old suppurative inflammation of the tympanum with necrosis of its

posterior wall.

We may have in thrombosis of sinus a train of symptoms in many respects like those observed in abscess of the brain, as headache, vomiting, restlessness, listlessness, convulsions and delirium are sometimes all found, but the onset of the disease is more sudden and its course shorter. Symptoms distinguishing thrombosis from abscess, however, are present in the majority of cases. Thus, when the thrombus is a center of septic infection, as it usually is, rigors, pyrexia and a gradually increasing condition of septicemia follow, the latter especially when septic pneumonia has been induced.

By the mechanical action of the pressure caused by damming back the blood flowing into the sinus, we have symptoms of congestion of the tributary veins in edema and hyperemia of the parts drained by them, and I think it is due to this that we frequently have optic neuritis as a symptom of sinus thrombosis. Hemorrhage from the nasal mucosa is explained by the same cause, as is also, in certain cases, great swelling and edema of the face and neck, and other more obscure and infrequent

symptoms.

Meningitis. Here we have a complication of suppurative otitis media more frequent in children than either sinus thrombosis or abscess of the brain. It may, unlike the other two affections, be the result of an acute otitis media of severe grade, or it may, like them, come from the chronic form of the disease, or it may be observed as the fatal result of either of them.

The onset and course of a meningitis need not be dwelt upon, save to point out the difference between it and abscess of the brain and thrombus. The acuteness of the attack and rapidity of the progress of the disease differentiate it at once from the former, and in a less degree from the latter. The pain is dull and distributed, and therefore unlike the sharp and lancinating pain of abscess. The temperature tends to hyperpyrexia, but not to fluctuation as in thrombosis with septicemia. The classical symptoms of meningitis, retraction of the head and rigidity of the cervical muscles, are generally present. Contracted pupils are the rule, but optic neuritis is generally absent.

Distinguished thus in its early stages by symptoms distinct from the other two affections under consideration, otitic meningitis runs a rapid and in the majority of cases a fatal course, and has in common with the other affections towards its termi-

nation, symptoms of delirium, convulsions and coma.

Green* has ascribed to meningitis due to suppurative otitis media two possible methods of causation from infection. One by vascular absorption of the morbid material, and the other by

^{*} Boston Med. Fournal, June 19, 1890.





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direct contact infection from diseased bone; and he points out with a view to treatment the fact that the latter is a much more limited and therefore more easily controlled process than the first, and argues that, while their symptoms are indistinguishable, we should, when operation promises any benefit, undertake it at the earliest possible moment, hoping that we have to deal with the latter variety of meningitis, and may, therefore, look for a favorable termination.

Otitic meningitis may, if the cause of irritation is removed before the process has progressed, yield to treatment by the means usually employed to control meningeal inflammation arising from other causes. Its course is, however, generally extremely

rapid and fatal.

The proper surgical treatment of brain abscess by trephining the skull and evacuating the pus, and that of thrombus of the sinus by opening and washing out the sinus, belong to the domain of the general surgeon, but the early and correct diagnosis of all of these conditions must be made by the specialist or by the general practician in order that the surgeon may have for his operation even a fair chance of success.

333 Prospect st.

DISCUSSION.

DR. HOWARD S. STRAIGHT: I have listened to this paper with great interest. The field open to discussion is too great to allow the mention of much more than the names of the various pathological conditions that may arise in the course of a chronic suppuration of the middle ear. It is not yet clear why the same pathological organisms can give rise to conditions varying so greatly in character. Anatomical difference and varying resistance of tissues to microbic invasion undoubtedly do much to explain why cerebral abscess thrombosis of the various sinuses, subdural abscess, etc., are all due to a common cause. As the time is so limited, I will confine my remarks to subdural abscess.

Often in children, but less often in adults, the roof of the tympanic cavity, and also the roof of the mastoid antrum is defective. If the bony wall separating these cavities is defective, the only portion between the tympanic cavity and mastoid antrum and the brain cavity, is the layer of mucous membrane lining them. In a suppuration of the middle ear, one can easily see how an ulceration of the mucous membrane would leave the brain exposed to invasion. Even if there is no defect in the bony wall at the best, the wall is thin, and if through the disturbance of the mucous membrane a necrosis of the bony roof should occur the possibility of a spread of the disease is equally great. Also, many minute blood vessels pass directly from the tympanic cavity and mastoid antrum into the larger vessels of the cerebral cavity. Why it is that a spread of the disease in the tympanic cavity to the brain occurs so infrequently is difficult to say. While it is the exception the conditions would lead one to expect such complications to be the rule.

In subdural abscess a collection of pus occurs between the

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dura mater and the base of the skull. If the localized inflammation progresses slowly the dura mater may become adherent of the bony walls, and the collection of pus strictly localized. It the opening between the cranial cavity and the tympanic cavity or mastoid antrum is free, little pus may collect, or, if when the collection accumulates and the pressure becomes increased, the pus can flow freely out of the brain cavity, the patient will experience very great variations in symptoms. After a free discharge of pus the patient may appear nearly as well as ever. As the pus accumulates he begins to suffer from intolerable pain in the temporal region, and becomes drowsy as the intra-cranial pressure increases. My time is already consumed.

DR. C. W. SMITH: I have been very much interested and instructed by this valuable paper on the subject of complications of otitis media, and while there is little or nothing for me to add to what has been given us, will say that I was forcibly impressed with the importance of looking into these cases carefully and promptly.

Surgical interference in these cases is far less dangerous to the life of a patient than the expectant or let alone treatment. It is a grave mistake to rest in the belief that what is out of sight is unimportant, and if the surgeon uses a little or, perhaps, a great deal of nerve, and removes the inner table of the skull to evacuate pus or explore the region, a life is often saved that otherwise would be lost.

The thought has also come to me that it might be well for the surgeon to open up the mastoid region for exploration and washing out in cases of fracture of the base of the skull, which so often crack the temporal bone, with resulting hemorrhage from the ear, and an opening up of the way for entrance of infection, setting up an otitis media or even meningitis, the latter perhaps being the most common cause of death from fractures at the base of the skull.

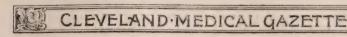


Hamburg, April 10, 1896.

Editor Cleveland Medical Gazette:

DEAR DOCTOR:—I received, a few days since, a copy of the Gazette, for which please to accept my thanks; it was the first medical news I had received since leaving home. I note the change in editorship with much surprise, and wish you, in your arduous undertaking, much success and a large circulation.

Most of my time has been spent in the laboratory of the new general hospital here. This hospital is, I believe, without any exception, the finest pavilion hospital in the





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world. It is of very recent construction, modern and advanced in every respect, and equipped mechanically and professionally with the best that the wealth and pride of this rich and beautiful free city of Hamburg can provide. I do not know just how many beds the various pavilions contain, between fifteen and eighteen hundred, the whole, with administration buildings and others, forming a fair sized village by itself, beautifully located on one of the highest points in the suburbs of Eppendorf, richly filled with flowering plants, shrubs, and shade trees, and half surrounded by a large park, one could hardly imagine anything better calculated to dispel something of the gloom and dread with

which a hospital is always surrounded.

The hospital was built between 1884 and 1888, and thus far has cost something over two million of dollars. New pavilions are being added from time to time, and as the grounds are very extensive, there is no present limit to its growth. Aside from the regular staff of visiting physicians and surgeons, there are twenty-seven assistant physicians who live at the hospital, being furnished with excellent rooms, board and laundry, and in addition receive a salary sufficient to pay all their ordinary outside living expenses. The result is that the places are eagerly sought for by many of the best of Germany's young physicians, and one finds in these young men an educated, intelligent, ambitious, and altogether pleasant set of fellows. They are under obligations to remain two years; some of them remain much longer. I can imagine no place more desirable for an assistant than here. Everything needed to make a hospital modern in its workings is at hand ready for use. That reminds me that the X-rays are receiving their due attention in Dr. Kummel's surgical service, and one of his assistants, Dr. Gosch, has made some excellent photographs. The chief value of his work, aside from its photographic merit, is the fact that the usual length of exposure is only 3 or 4 seconds for hand and arm, while 30 to 40 seconds for an elbow or knee, gives very excellent results. He has also taken very fair photographs of the thorax, showing the ribs, both posterior and anterior, scapula, clavicle and humerus. I hope to be able to get copies of them to send home.

The surgical clinic here is abundant and excellent, and the operating building, constructed, I believe, under the direction of the former surgeon, Dr. Schaede, is a model; three operating rooms, each large enough for three operations to proceed at once, enable the two surgeons, Drs. Kümmel and Sick, with their numerous assistants, to take care of the large amount of surgical material which daily presents itself. There are, altogether, about 750 surgical



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beds in the various pavilions. I do not feel that I can say that the surgical work is any better than our American surgery, but it is excellent, with all antiseptic and aseptic precautions scrupulously observed, not only by the surgeons themselves, but what is of course equally important, by the assistants, nurses and attendants.

Among the items embraced in surgical technique I may mention that Dr. Kümmel uses catgut almost exclusively for sutures and ligatures, and as a dressing, in addition to iodoform gauze, uses sterilized wood-wool made up in compresses covered with sublimated gauze.

Nearly every day I meet some visitor (usually German)

at the clinic, but thus far have met but one American.

Among the interesting features of the hospital is a pendulum pavilion, that is my own name for it. Here are to be found automatic machines operated by pendulums for exercising every joint in the body which may be needed, from a phalangeal joint of finger or toe to the shoulder or hip. What a help such a room must be to a hospital, and how easy would it be under such circumstances, to have our orders for passive motion, carried out. I can not close my letter without a reference to the laboratory where I have spent, through the kind permission of the director of the hospital and the prosector, Dr. Frankel, five or six weeks of most interesting work in bacteriology. Here, as everywhere else in the hospital, everything is provided that can be desired, and assistants are constantly at work under the direction and guidance of the prosector in carrying out investigations and working up material sent them from the medical and surgical services and from the postmortem room, which is in the same building.

The autopsies are numerous and well executed, and under the direct supervision of the visiting staffs and also of Dr. Fränkel. It offers a rare opportunity for the study of gross pathology and, in connection with the laboratory

of general pathology and bacteriology.

They have here a choice collection of cholera cultures, relics of 1892, and these, with the cultures of pseudo-cholera obtained from patients and from the river Elbe, form a most interesting study. Monkeys, dogs, cats, guinea pigs and mice for experimental purposes are kept in a special room, and are made use of frequently in the general work carried on here.

One of the bacteriological assistants, Dr. Otto, has been much interested in the staining of the various motile bacteria, so as to show their "geisselen." Not being initiated in the lore of bacteriology, I was unable to find a translation for this word, so that we agreed to talk about the feet of the typhus bacillus, etc., though I suppose flagellæ or

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something of that sort would be more proper. It has been a very interesting study, anyhow, and we could always count on the cholera bacterium having not more than two feet while the typhus bacillus proudly got there invariably with five feet, and yet, with all his feet, does not seem to be able to accomplish quite as much as his friend the biped.

Once each month a meeting of the visiting and resident staffs of the hospital is held for the presentation of interesting cases, pathologic specimens and the formal reading of papers and their discussions. I had the pleasure of attending one of these meetings, which bring forth the very best work done in the hospital in a most interesting way. After the meeting, which is held in the evening, a lunch is served, and by the time beer and cigars are finished it is past midnight, and the uninitiated, meaning myself, misses the last car and walks home. In the short time I have been here I have grown much attached to the hospital and many of the genial assistants, and I am afraid if I continued my letter much further it would become too essentially personal to be of any interest. It seems too bad that the vast amount of material here cannot, at present at least, be used for practical teaching purposes, though as a center for valuable contributions to medical and surgical science it surely should take high rank.

The general kindness and courtesy with which strangers are treated is unusual. I can hardly believe it would

be equaled by our own American hospitals.

Just a word now for Hamburg itself, and I shall be finished. I think the cholera epidemic which broke out here a few years ago led me to expect anything but the beautiful clean city which Hamburg really is. Intersected in every direction by rivers, and enclosing two small lakes, and surrounded by extensive boulevards shaded by dense shrubbery and ancient trees, streets scrupulously clean, delightful suburbs, especially along the Elbe, it is now, whatever it may formerly have been, the last place where a terrible pestilence might seek an abiding place. The water supply, since the cholera, has been taken from further up the Elbe, and is filtered through sand and gravel. I am assured by the physicians here that the water is thoroughly pure and whole-Really, though, I don't know why the water supply should be taken into account in tracing the etiology of the disease here, for thus far I have seen no one drink it. I haven't even done so myself, of course substituting Apollinaris or Selterser.

I expect to go to Kiel in a few days, and then to Berlin, where I shall remain until I start for Cleveland.

With kindest regards, I am

Sincerely, F. E. Bunts.



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ALL LETTERS and communications for the business department should be addressed to the Publisher, 618 New England Building. All editorial communications, books, pamphlets and exchanges should be addressed to the Editor.

THE GAZETTE is sent to every subscriber until ordered stopped. When directed to discontinue, at the time of subscribing, the journal will cease coming when time expires. CHANGES FOR ADVERTISEMENTS, or addresses, must reach us not later than the fifteenth day of the month, preceding issue to be corrected in the current number.



THE NEW BUILDING FOR THE CLEVELAND COLLEGE OF PHYSICIANS AND SURGEONS.

The accompanying engraving represents the front elevation of the new building of the College of Physicians and Surgeons as it will probably appear when finished. This plan is not quite definitely settled upon in all its details. As now proposed the building will be 75 by 124 feet in size and four stories high fronting on Brownell street on the corner of Central avenue.

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The material will be cut stone for the lower story, those above being of pressed brick of buff color with terra cotta trimmings i., e., window caps, sills, cornices, etc. The roof will be of tile with skylight. There will be an abundance of light, the building being open entirely and permanently on three sides, and having only a small building at present on the fourth side. The building will be fire proof throughout, heated by steam, lighted by electricity, thoroughly ventilated by fans and various mechanical arangements.

The architect, Mr. S. R. Badgley, has not yet completed the plans of the interior. He is determined to have it a model medical college building to match the Slocum library at Delaware which has been pronounced by good judges the most perfectly adapted to its purpose of any library building in North America. It is not proposed to waste any room for mere architectural effect, for immense amphitheatres or useless corridors.

In a recent paper entitled

A CLINICAL STUDY OF THE INJECTIONS OF IODOFORM-GLYCERINE IN TUBERCULOUS OSTEOMYELITIS.

BY HARRY M. SHERMAN, A. M., M. D., OF SAN FRANCISCO, CAL.,
AND AGNES WALKER, M. D.,

some interesting observations were recorded.

The treatment was begun and carried out to satisfy the mind of the writer, who thought the statements made by some surgeons to be beyond the facts. In all 20 cases were treated, and 164 injections of 10% of iodoform suspended in 90% glycerine were given, the amount of each injection ranging from 20 minims to 4 drachms. Of these 81 were intra or peri-articular injections, 81 were intra-osseous injections, and two were into the evacuated cavities of tuberculous abscesses. The greatest number of injections given any one case was 21, and the largest amount of iodoform one case received was 198 grains. Reaction followed the injections many times, but not





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always, the highest reaction-temperature being 104°. There never was iodoform poisoning, nor suppuration as the result of the treatment. During the treatment 7 cases improved, 3 remained unchanged, and 10 got worse, 5 of these last developing tuberculous abscesses and 7 coming to operation. In the review of the cases that improved they did not differ materially, either in point of time treatment by apparatus was necessary, nor in the final results, from cases treated by classical protective methods. The cases that got worse did so on ordinary lines, except 2 which were apparently made worse by the treatment. The specimens of tuberculous bone removed from the operation cases showed no attempt at repair as the effect of the iodoform. The opinion is expressed that iodoform has very feeble if any germicidal effect on the bacillus of tuberculosis, and that, while intra-osseous injections are usually practically harmless, still they may cause extension of the lesion, in small foci, by sweeping the tuberculous tissue before the flow of the iodoform-glycerine into healthy areas, that in larger areas this danger does not exist, but that there has been, in these cases, no satisfactory therapeutic result.



THE FUNCTIONAL EXAMINATION OF THE EYE. By J. Herbert Claiborne, Jr., M. D., Adjunct Professor of Ophthalmology in the N. Y. Polyclinic; Instructor in Ophthalmology College of Physicians and Surgeons, N. Y.; Assistant Surgeon to the New Amsterdam Eye and Ear Hospital; Author of "Theory and Practice of Ophthalmoscope." 100 pages with 21 illustrations. Cloth. \$1.00.

This book consists of a number of lectures delivered at the N. Y. Polyclinic during the last eight years, and more particularly of a number of lectures or lessons in a practical course delivered to the graduating classes of the College of Physicians and Surgeons, New York.

"Contains the facts necessary for the examination of the eye as pertaining to refraction expressed in a simple, clear and attractive manner—a fit companion for the author's previous work on the ophthalmoscope. The type and binding are also excellent."—The Canadian Medical Review.

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Compend of Gynæcology. By William H. Wells, M. D., Adjunct Professor of Obstetrics and Diseases of Infancy in the Philadelphia Polyclinic. 150 illustrations. 262 pages, 12mo. Cloth, 80 cents. Quiz Compend Series. Philadelphia: P. Blakiston, Son & Co. 1896.

According to the author, this book is written to present in condensed form the best teachings of the present day. If for nothing else, the book deserves mention for the excellency of the cuts and illustrations. Clearness in statement seems the object of the author, and to this end, arrangement, language and illustrations are made to conform.

DISEASES OF CHILDREN. By Marcus P. Hatfield, Professor of Diseases of Children, Chicago Medical College. Second Edition. 220 pages, 12mo. Cloth, 80 cents. Quiz Compend Series. Philadelphia: P. Blakiston, Son & Co. 1896.

This little book consists of a condensation of a course of lectures by the author. A spirit of life seems to run through it, distinguishing it from the ordinary quiz compend. The matter is presented in a fresh and readable form, making it a very handy and useful book for the physician as well as the student. This second edition is thoroughly revised and additional plates inserted.

Modern Medicine and Homeopathy. By John B. Roberts, A. M., M. D., Ex-President of the Philadelphia County Medical Society and the Medical Society of the State of Pennsylvania. An exposition of the points of similarity and differences between homeopathy and the science of medicine at the end of the nineteenth century. 16mo; Cloth; 75 cents. The Edwards & Docker Co., Philadelphia.

"These essays, which are written in a spirit of friendliness to our erring brothers, have given rise to some controversy, on the ground that Dr. Roberts has to the homœopathists been

'To their virtues very kind, To their faults a little blind,'

But it is evidently in a purely philanthropic spirit that the essays were written, and they have very appropriately emanated from the City of Brotherly Love and Dr. Roberts.

"Those who wish to become acquainted with the tenets of the homœopathic sect, in their relations with modern medicine, will do well to procure this little work—which, while giving the points in which 'homœopathy' still adheres to the teachings of modern medicine, sets forth clearly and without abuse the fallacies and distorted views held by some of the sectarians under consideration."—Fournal of the American Medical Association.

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A TEXT BOOK OF BACTERIOLOGY. By George M. Sternberg, M. D., LL. D., Surg. Gen. U. S. Army, Ex-Pres. Am. Public Health Ass'n, etc., etc. Thoroughly illustrated. Cuts and colored plates. Nearly 700 pages. New York: Wm. Wood & Co. 1896.

Those who are familiar with Dr. Sternberg's manual published four years ago, will at once welcome this new and carefully prepared volume on Bacteriology, since its arrangement is especially designed for students use. The drawings are excellent, and the colored plates make the illustration of the text complete. The book will find a ready adoption in the colleges.

"The Funny Bone," published by the Funny Bone Publishing Company, St. Louis, Mo., is a recent sample of the humor to be found in the professional life of dentists, doctors and medical students. It is an excellent book for any young doctor to hold in his hands while waiting for patients—it may keep him cheerful.

SKIASCOPY AND ITS PRACTICAL APPLICATION TO THE STUDY OF REFRACTION. By Edward Jackson, A. M., M. D. With twenty-six illustrations. Published by the Edwards & Docker Co., Philadelphia, 1895.

Skiascopy is the most valuable objective test we have at our command for the examination of errors of refraction, and no one can speak so authoritatively on the subject as Dr. Edward Jackson. And it is therefore most fitting that he should give us a book, as he has done, concise, clear, free from technicalities, fitted for the daily use of the student and practitioner who has a general knowledge of the anatomy and physiology of the eye. It is altogether probable that the author's use of the name "Skiascopy" will have the desired result of fixing it permanently, although there is little objection to retaining the name "retinoscopy," so generally used in this country and abroad. When a second edition is called for, it might be advisable to add a brief bibliography as the literature of the subject is widely scattered and under many names.

OTHER THAN MEDICAL.

Whose Soul Have I Now? By Mary Clay Knapp. Cloth, \$1.25; paper, 50 cents. The Arena Publishing Company, Copley Sq., Boston, Mass.

The author has aimed to do more than to write an interesting story. She has aimed to present ideas that will enlarge and ennoble and beautify the life of anyone who





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will cherish them and allow them to dominate his life. The best of these ideas, it is true, are not new; but the setting is worthy of the author. The thoughts that pervade the book cannot be too frequently and too variedly repeated. When they take full possession of the minds and the hearts of men, the world will be full of "sweetness and light," Thoughts like these need frequent repetition: Love is the dominating element in life, stronger in women than in men; ideal or spiritual forces give a charm to existence; in supreme moments people of certain temperaments are lifted to heights of spirituality whence they see and know and feel what lies beyond the veil. Beautiful surroundings are as absolute a necessity to the æsthetic nature as food is to the physical; a true marriage requires affection, sympathy in all things, comradeship, and freedom; the material age is passing away and the present is the age of spirit, of love, of giving and doing all for the sake of humanity; only through suffering do we rise to the soul's height.

GEORGE'S MOTHER. By Stephen Crane. 16mo, 177 pg.; cloth, 75 cents. New York: Edward Arnold.

Mr. Crane has many critics. They say he is not an artist. His sentences are criticised, and no end of criticism is found for his abuse of the English tongue. However, people are reading his books, and the descriptions they find in them of life, please.

The slum element of a large city is not altogether an easy subject, but whatever can be said to Mr. Crane's discredit, he certainly has a knack of holding his reader's interest. A kind of realness lays hold of one, and we unconsciously glide from pathos to humor. The secret of Mr. Crane's success seems to lie in his realism.

THE MAN WHO BECAME A SAVAGE. A story of our own times. By William T. Hornaday, Author of "Two Years in the Jungle," Etc. With 16 full-page half-tone illustrations. Cloth, \$1.50. Buffalo, N. Y.: The Peter Paul Book Co.

The Buffalo Commercial says:

"Mr. Hornaday has written a book which will delight any reader with its striking merit as a story; but there is certainly a moral to it and one that the careful, thoughtful reader will notice, ponder, and in many cases we hope turn to individual and general profit. The indictment against much that is scandalous in modern "civilization" contains many counts to which the "civilized" must plead guilty—





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the delay in the punishment of crime; the venality of the courts; the temptations in the way of every business man to earn money by illegitimate methods and the failure of society to regard a low standard of business honor as despicable; the artificial life that we all lead and call "Society"—many of these scandalous spots in the scheme of "civilization" are treated without paraphrase and the lesson is one that ought to carry reform with it. So too, are the many wrongs of which woman is the victim, made the subject of deserved censure in the course of this powerful story and God knows that there is room there for the reformer's best, most thorough and persistent work."

ETIDORHPA; OR, THE END OF EARTH. By John Uri Lloyd. April, 1896. Cincinnati: The Robert Clarke Company.

B. O. Fowler, editor of The Arena, Boston, says of this book:

"The present is an age of expectancy, of anticipation, and of prophecy; and the invention or discovery or production that occupies the attention of the busy world, as it rushes on its self-observed way, for more than the passing nine days wonder, must needs be something great indeed. Such a production has now appeared in the literary world in the form of the volume entitled "Etidorpha, or the End of Earth," the very title of which is so striking as to arrest the attention at once.

A most remarkable book. . . . Surpasses, in my judgment, any thing that has been written by the elder Dumas or Jules Verne, while in moral purpose it is equal to Hugo at his best. . . . It appeals to the thoughtful scientist no less than to the lover of fascinating romance."

THE DETECTIVE FACULTY, AS ILLUSTRATED FROM JUDICIAL RECORDS AND THE ACTUALITIES OF EXPERIENCE. By W. H. Bailey, Sr., LL. D., author of "Onus Probandi," "Conflict of Judicial Decisions," "Self-Taught Law," etc. Cincinnati: The Robert Clarke Company. Cloth, 12mo. Price, \$1.50.

The aim of the author is, by blending the results of long practice with the actualities developed on trials, and illustrated by the works of detective fiction, to enable the lawyer, the young lawyer especially, as also the detective and the examining magistrate, to ascertain and identify the suspected party to crime or fraud, to warn him against false or deluding appearances, to suggest the proper mode of cross-examining seemingly incriminating circumstances,



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and to drill and guide his intelligence so as to enable him to eviscerate the truth from complex problems, and to instill into him the accurate trend of detective thought and investigation. To this end, numerous instances drawn from the records of crime and fraud, as well as illustrations from actual occurrences, are given, and their tendency and effect discussed. It is a handy book that every young lawyer or detective should read and ponder over. This work will also be a valuable one for the physician. The experience of any physician must train his judgment of human nature, and the book will save him.



Dr. A. H. Van Cleve has moved to El Paso, Texas.

Dr. F. S. Clark was married May 21 to Miss Elizabeth Marvin, daughter of A. J. Marvin.

The Marriage of Dr. G. N. Símpson, of Warren, O., is announced. The bride is Minnie Byard, of New York. The GAZETTE sends best greetings.

Dr. H. L. Wenner, (Med. Dept. W. R. U., '82), of Tiffin, O., has been elected presidential elector for his district.

Dr. John G. Spenzer has been elected Professor of General and Medical Chemistry and Pharmacology in the Cleveland College of Physicians and Surgeons, (formerly Wooster.)

The Sanitarium, at No. 900 Fairmount St., Cleveland, O., will admit mild nervous and mental cases, to be under the supervision of the Family Physician. The Health Home is beautifully located and well equipped to care for such cases as will be admitted, to the full satisfaction of all concerned.

At "P. & S." Dr. W. E. Shackleton and Dr. Paul Opperman have been elected Assistants in Ophthalmology and Anatomy respectively, and Mr. W. D. Wise will assist in Physiology.

The American Microscopical Society will hold its nineteenth annual meeting in the new Carnegie Library Building,

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Pittsburg, Pa., Tuesday, Wednesday, Thursday and Friday, August 18, 19, 20 and 21, 1896. A hearty welcome will be extended to all interested in the microscopical sciences. Applications for membership and titles of papers to be read at the meeting should be addressed to A. Clifford Mercer, M. D., president, Syracuse, N. Y., or to Wm. C. Krauss, M. D., secretary, 382 Virginia street, Buffalo, N. Y.

Professor Dr. Don Francisco Bastillos, Calle de Tacuba No. 7, Ciudad de Mexico D. F. Republaca Mexicana, has been elected treasurer of the Second Pan-American Medical Congress to be held in the City of Mexico, beginning the 16th of November. All members residing in the United States and Canada, and others who contemplate attending, should forward the registration fee, \$5.00, gold, to him at once, and notify Dr. C. A. L. Reed, Cincinnati.

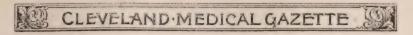
The Mississippi Valley Medical Association.—A meeting of the Executive Committee of the Mississippi Valley Medical Association was held at Atlanta, on May 6, and the following gentlemen were appointed to deliver addresses: Dr. H. N. Moyer, Chicago, Address on Medicine; Dr. Horace H. Grant, Louisville, Address on Surgery. The indications are that the meeting to be held at St. Paul, on Oct. 20, 21, 22 and 23, will be the largest and most successful in the history of the Association. As all the railroads will offer reduced rates for the round trip, an opportunity will be given to visit St. Paul and Minnesota during the most delightful season of the year.

C. A. Wheaton, M. D., St. Paul, Minn., Chairman Committee of Arrangements; H. O. Walker, M. D., Detroit, Mich., President; H. W. Loeb, M. D., 3559 Olive Street,

St. Louis, Secretary.

At the Recent Meeting of the American Orthopedic Association in Buffalo, Dr. Henry Ling Taylor, of New York, showed a simple device for the bloodless treatment of ingrown toenail. No originality is claimed, but the method appears not to be known in this country. The plan is to lift the nail edge away from the irritated granulations by means of a hook bent from a strip of silver about one inch long, \(\frac{3}{16} \) inch wide, and \(\frac{1}{100} \) inch thick. The edge of the nail rests on the hooked extremity, while the shank of the hook curves over the side of the toe and is held in place by a turn of adhesive plaster. Cases even of long standing, when properly managed, yield to this treatment in a few weeks.

Mrs. Smith—Your boy looks badly; what ails him? Mrs. Jones—Bad doctorin', I say, mum. Us poor



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people needs to pray with all our hearts: "From all false doctrine, good Lord, deliver us." I never didn't quite see the meanin' of it afore."

It is to be hoped that the new registration law will do something to deliver the people of this State from "false doctorin'." If it only abates the "Christian Science" nuisance of which Cleveland has recently had another aggravating exhibition, it will do some good. If one or two of those mild lunatics who don't even know enough about medicine to know that there is a law requiring practitioners to be qualified, were given the extreme penalty, it might help to bring them to their senses. If they are all to be allowed to escape merely with the warning to "never do it again," many more lives may be sacrificed.

Burdette on the Mustard Plaster—inspired the mustard plaster on Burdette.

Press me closer, all thine own,
Warms my heart for thee alone.
Every sense responsive thrills,
Each caress my being fills;
Rest and peace in vain I crave,
In ecstacy I live thy slave;
Dower'd with hope, with promise blessed,
Thou dost reign upon my breast;
Closer still, for I am thine,
Burns my heart, for thou art mine,
Thou the message, I the wire,
I the furnace, thou the fire;
I the servant, thou the master,
Roaring, red-hot mustard plaster.

"Congenital Wry Neck—Some recent Modifications in its Treatment," was the subject of a paper written for the Am. Orthopædic Association, by William Adams, F. R. C. S., London. We have not space to present it at length, but his conclusions may be summarized as follows:

1. The period at which the sterno-mastoid muscle should be divided is reduced from seven to three years; and this has been done by the introduction of the American system of extension by the head, both in the recumbent and in the standing position.

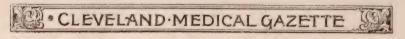
2. Head extension in the horizontal and standing positions—long before the operation; and continued long

after it.

3. The use of a felt jacket, with head-gear attached, instead of a steel spinal support with head-gear.

4. The use of a felt collar at night, as a retentive support.

Practical Inferences from Clinical Observations in Latera Curvature of the Spine was the title of a paper read befor



the American Orthopædic Association by Λ . B. Judson, M. D. The principal points which the author made in his essay were these:

(1) Deformity lessens in recumbency and suspension, therefore these attitudes should be practiced as much as possible through the growing period. (2) Deformity increases with the intervention of fatigue, therefore physical and mental exertion should be reduced to the minimum. (3) The chest is expanded in suspension, therefore suspension should be practiced as much as possible (a) to oppose the contraction accompanying rotation, and (b) to improve the respiration, and thus sustain the general health and give tone to the muscular system, whose failure to hold the spine erect, under its natural burden, is one of the causes of lateral curvature.

A brace is powerless to reduce rotary lateral curvature. As the ribs are chiefly attached to the processes instead of the bodies of the vertebral column, the first effect of a brace pressing on the ribs is to increase rotation and curvature and contraction of the chest. Persevering suspension opposes the contraction accompanying rotation and curvature, and in time promotes symmetry by over-filling the chest by forced development of its normal contents.

Treatment on the rational grounds provided by clinical observation prevents increase of deformity and, in favorable

cases, improves the condition.

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The William F. Jenks Memorial Prize.—The Fourth Triennial Prize of four hundred dollars, under the deed of trust of Mrs. William F. Jenks, will be awarded to the author of the best essay on "The Etiology and Pathology of Diseases of the Endometrium, including the Septic Inflammations of the Puerperium." The conditions annexed by the founder of this prize are, that the "prize or award must always be for some subject connected with Obstetrics, or the Diseases of Women, or the Diseases of Children;" and that "the Trustees, under this deed for the time being, can, in their discretion, publish the successful essay, or any paper written upon any subject for which they may offer a reward, provided the income in their hands may, in their judgment, be sufficient for that purpose, and the essay or paper be considered by them worthy of publication. If published, the distribution of said essay shall be entirely under the control of said Trustees. In case they do not publish the said essay or paper, it shall be the property of the College of Physicians of Philadelphia." The prize is open for competition to the whole world, but the essay must be the production of a single person. The essay, which must be written in the

English language, or if in a foreign language, accompanied by an English translation, must be sent to the College of Physicians of Philadelphia, Pennsylvania, U. S. A., before January 1, 1898, addressed to Barton Cooke Hirst, M. D., Chairman of the William F. Jenks Prize Committee. Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay. The committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year. The committee reserves the right not to make an award if no essay submitted is considered worthy of the prize. James V. Ingham, Secretary of the Trustees.

The Surgical Staff of the Cuban Force.—A correspondent in Cuba writes (N.Y. Ilcrald-The Journal) that the surgical corps in the Cuban army consists of eighty physicians distributed among its six different sorrespondent.

distributed among its six different corps.

The head of the service is Dr. Joaquin Castillo Duany, surgeon general, a graduate of an American university, and formerly attached to the United States navy, in which capacity he formed part of the crew that started in the *Rodgers* as a relief expedition to the *Jeanette*.

When the present revolution broke out he was medical inspector at the Juraque iron mines. He joined the ranks of the Cubans, together with Mr. Kilpatrick, one of the man-

agers, and several other employes, all Americans.

Surgeons in the Cuban army have no limited time of service, receive no pay, acquire no fame or rank. These men, brought up among the refining influences of civilization, abandon their practices, their homes, their families, and start on a gloomy career of hardship and danger, with the possibility of being caught by the Spaniards and shot by the roadside.

The surgeons are all provided with first-class French instruments, and in their operations they always make a lavish and intelligent use of antiseptics, for in Cuba's burning climate tetanus and secondary suppuration set in with astonishing rapidity.

Drugs are often hard to obtain, there being no regular

base of supplies.

In many cases, where mercury, bichlorid, iodoform and carbolic acid are unattainable, wounds are sprinkled over with finely powdered burnt coffee, which proves a powerful antiseptic.

Fevers are often successfully treated, in default of qui-

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nine, with a decoction of the "cundeamor," leaves from

creeping plants of valuable febrifuge properties.

As alcohol can be had plentifully at any sugar plantation in a reasonably pure state, tinctures of many native plants are constantly prepared, which are found effective by previous trials. Chloroform and ether are things unheard of in those wildernesses, and nothing illustrates more graphically the Spartan heroism latent in the Cuban nature than the unflinching, way with which they submit, in full consciousness, to the ominous knife. It is not strange to see a man there light his cigar, and look on coolly while his arm or leg is being amputated, just as if it were a matter of no concern to him.

Doctors' Right of Way.—Over eight hundred physicians of Chicago, according to The Journal, have already taken advantage of an ordinance passed by the council, giving them the right of way on the streets and over bridges ahead of processions, parades, fire lines and other obstructions that usually stop their ordinary traffic. Each of the physicians applying has been furnished with a badge and a special permit, which entitles him to the privileges of the ordinance and demonstrates his authority.

The badge is a very pretty affair, about the size of a quarter, made of German silver in the form of a circle, is of an inch wide, around a red cross in the center. The cross

is of red enamel and the circle white.

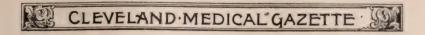
The ordinance also applies to ambulances, and is made to include all physicians driving in answer to professional calls, to fires or accidents. It is designed to afford relief as quickly as possible to people who require the services of a physician.

The permits are signed by the mayor and city clerk, and the badges are issued from the city clerk's office on the

payment of a 50 cent fee.

We have often thought such a plan would be a good one for Cleveland or any other city where a doctor in the greatest haste on a professional call is frequently delayed where time means life or limb to some poor sufferer. Probably the same privilege could be procured in our city if the matter is properly undertaken. Who will act upon this suggestion?

Dr. Charles A. L. Reed of Cincinnati has been selected by the European Committee on organization of the International Periodical Congress of Gynæcology and Obstetrics, as Honorary President of the meeting of that body to be held in the city of Geneva, Switzerland, the first week in September of this year.



ABSTRACTS.

YEAST NUCLEIN IN THE TREATMENT OF HIP JOINT DISEASE.

In the American Lancet for January, 1895, Dr. Charles W. Hitchcock, of Detroit, remarks that not all cases of hip disease are, with any fair promise of success, amenable to conservative treatment.

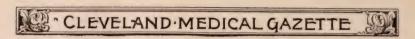
The nucleins, says Dr. Hitchcock, are among the newer remedies that may do much as an aid to tissue-building, more especially as they are said to influence cell metabolism so as to

bring about a healthy resistance to disease processes.

The germicidal properties of nuclein, he continues, have been demonstrated, and Vaughan and McClintock have shown that the germicidal constituent of blood-serum is a nuclein. Parke, Davis & Co., he says, have rendered yeast nuclein accessible to the profession. They make it for Dr. Vaughan and according to his formula; the solution which they supply is about a one-per-cent solution. Of this solution of yeast nuclein, from five to sixty minims may be administered at a time. The dose may be increased gradually and cautiously from the initial dose (which may appropriately be about ten minims), regard being had to the febrile reactions, which may be decidedly

marked and are to be looked out for.

He then gives the following report of a case: "March 30, 1894, I first saw Miss L. C., aged twenty years. The young lady gives a history of having been always well until December, 1890, when she fell on a sidewalk and struck on the left hip. The following month she fell on the ice on the same hip, which, she says, 'has seemed weak' ever since this second fall, though she was able to be about as usual and tried to persuade herself that she had no serious trouble. She went to the World's Fair in the fall of 1893, and each day's sight-seeing tired her greatly. Her left knee would pain her at night and the hip would ache; but she would not give up to it. Later, after her return home, her hip began to pain her intensely after every walk. The first pain was in the knee, and more or less still continued there, but the hip now grew so exquisitely sensitive and painful that all use of the leg had to be given up, and for three weeks before I saw (her March 30th) she had not walked at all. She was obliged to lie on the back or right side, and I found the left leg well flexed and adducted. Any attempted passive movement of the leg seemed to give great pain, and the whole region about the hip joint was so sensitive that even the lightest pressure of the finger could scarcely be borne, though at the same time the sensitive area presented nothing on inspection to attract notice. Any attempt with the patient on her back, to extend the leg, quickly caused an arching of the pelvis to correspond to what little extension could be endured.



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"Removal to the Harper Hospital was proposed and consented to. She endured the ride of two miles in the ambulance very well, and was admitted between 5 and 6 p. m., March 30, with a temperature of 99.6° F. and a pulse of 80. Lead-and-opium stupes were applied to the region of the sensitive joint, and under their use the acute tenderness so subsided that on April 3d, by careful manipulation, we applied a simple Buck's extension, the plaster being applied the whole length of the thigh and leg. This was kept up for several weeks and with quite a heavy weight, greatly to the relief of the patient, pain gradually disappearing from the direct region of the joint, being

longest complained of through the groin.

"June 1st I applied a plaster-of-paris cast enveloping the entire left leg from the ankle up, and extending around the pelvis. An extra sole of about an inch and a half in thickness was now applied to the sole of the right foot, crutches were secured, and the patient was encouraged to be up and about. She soon began to walk some each day, but the weight of the cast annoyed her, and its pressure about the pelvis irritated her (though it really fitted very well), and she found a semi-reclining position in a wheel-chair much more comfortable than the erect position. The cast had been relied on to make necessary extension, but now became somewhat loose, and was removed on June 27th. Two days later a Buck's extension was again applied. The patient had not borne the confinement to bed and hospital well; she did not eat or sleep well, and was getting thin, although the hip was now very comfortable. She therefore decided to leave the hospital, which she did on July 6th.

"On July 4th, under chloroform, I injected from two to four drachms of a ten-per-cent. iodoform emulsion into the joint cavity. I took this opportunity to completely flex the leg on the thigh and the thigh on the body. There was no adhesion or resistance in either joint, and no feeling as of erosion or thickening about the hip joint. During her stay in the hospital the temperature varied from normal to 100°, but the most of the time between normal and 99.2°. The pulse varied from 76 to 110. Malt, hypophosphites, cod-liver oil, and other remedies

had been given, but had not been well borne.

"September 1st I began the systematic use of yeast nuclein, and the improvement almost from the first has been noticeable and extremely gratifying. The remedy has been administered hypodermically, and the site chosen was the region immediately around the affected hip joint. The first few injections were made daily, but the reaction seemed to me so marked that I found treatment on alternate days to be more satisfactory. It has been recommended, as a good precaution, to sponge the chosen site with a two or three-per-cent. solution of carbolic acid, for its antiseptic and local anesthetic effect. This precaution, however, I did not find necessary, but used great care with needle and syringe, sterilizing both, each time, before using.

"From September, 1894, to January, 1895, the case was





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under constant supervision and care, and correct and detailed reports were kept noting the patient's temperature, general condition, and especially the amount of nuclein solution which was injected at each visit. At the beginning twelve minims only were used in each twenty-four hours, this being gradually increased to fifty minutes with the happiest results. There were at times some pain and a burning sensation at the site of the injec-The temperature each afternoon was about 99° to 99.4°, on one or two occasions going as high as 101.2°. At the time of the last-named date the patient experienced no pain whatever in the hip, and expressed herself as feeling as well as ever. The nuclein was temporarily stopped, and I do not consider it accomplished all a continuance of it might do. The improvement has been most gratifying since I began giving the nuclein, and I think there can be no doubt that her comfort has been due, in a large degree, to this remedy. It was given with the idea that her case was probably tuberculous, and for this suspicion the family history affords us more or less ground. The nucleins are said to be of avail in incipient tuberculosis, and this seemed a good case for their use, which is, of course, as yet largely empirical. The disease process in this case certainly seems to have been held in abevance. Whether the action of the nuclein in such a case is simply to enable the cellular elements to resist encroachments of bacilli, or whether we may hope for so strong a germicidal action as to destroy entirely the bacilli, is, I judge, a question concerning which one can, as yet, only speculate. This patient understands that she is forbidden to step on her left foot or use the limb before next summer, and the day may then be still further postponed. I do not vet regard, or now report, the case as one of recovery, but it seems to me especially interesting as showing gratifying improvement under the use of an agent, quite new as yet, which may have a wide field of use. I hope eventually to have the young lady walking without apparatus of any sort, and an evidence of what conservative treatment may accomplish, even in a somewhat unfavorable case."

In a postscript written in January, 1896, Dr. Hitchcock

adds

"This patient was kept under frequent observation until May, 1895, the splint having been discarded some time earlier. In May, first one crutch, then both, and later the cane were dispensed with, the injections of nuclein were discontinued, and the patient has since walked through the summer and fall without support of any kind and without any discomfort whatever in the hip. She has been very happy and grateful for her relief from pain, and it has been delightful to see her evident joy in her ability to walk without suffering. Indeed, she has been altogether a pleasing fulfillment of what I hoped to do when I first reported the case in January, 1895, and this excellent result I attribute very largely, if not entirely, to the long and persistent use of nuclein."—New York Medical Fournal, March 7, 1896.





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CHOLERA INFANTUM.

A complaint peculiar to infantile life, too well known to need further description. I have been requested to give my treatment for this scourge of the nursery. I will not stop to give its pathology or morbid anatomy. What the profession needs is the simplest and mildest treatment that will relieve the little sufferers in the shortest time; one of which, at least, I hope to give.

The first five years I practiced, I treated these cases as I had learned to from the books and lectures. When my little patients died I wondered why they did not get well, for I knew my treatment was orthodox. When a poor, little emaciated one lingered through the summer into autumn, and finally got well,

I knew it was despite both disease and treatment.

Among my patients was our own little Ruby, a bright, sweet darling of fourteen months, stricken July 2d. I exhausted the remedies laid down in the books and those in my memoranda taken down at college, then called to my assistance the ablest physicians available. They said I had done all they could do, and offered nothing new. One, a diplomat, said he had obtained the best results, in such cases, from the use of Mrs. Winslow's Soothing Syrup, advised me to try it and went away. In my despair I cried out, "Is this all?" Is this the end of all hope of assistance, in this hour of my great distress.

July 28th she ceased to be. We laid her away, and might well have written on her little monument, whose spire points heavenward, "Died early because they knew not what to do."

Then I began to enquire of every doctor I met: What is your treatment for cholera infantum or summer complaint in children? They replied: Opium, morphine, laudanum, paregoric, Doveri, cinnamon, cloves, allspice, nutmeg, kino, blackberry root tea, white oak bark, raspberry leaf—the whole catalogue of astringents—made into some form of powder, decoction or syrup. The same old, old treatment that has sent, and is still sending, multiplied thousands of lovely, innocent children to premature graves, that ought to be saved.

Under astringents, I found the inner coating of the stomach wrinkled and hard, like that of chicken's gizzard; the small intestines the same, with occasional short spaces distended with gas. No digestion, absorption or assimilation could take place under such conditions. (If you will cut down here after death, gentlemen, you will find, after using your puckering treatment,

a similar condition.)

I began to think for myself: There is evidence of irritation here, manifest at both ends of the line. First, by the vomiting, and second, the diarrhoa. What then are the indications?

The answer is plain. First, control the irritation, and second,

The answer is plain. First, control the irritation, and second, remove the cause. To control vomiting, one-eighth grain tablet of calomel every hour until four are taken. Follow with teaspoonful doses of castor oil, or pure olive oil, in which is mixed three to five drops of Battle & Co.'s Bromidia, every two hours, until it operates on bowels, and be sure that it does operate, too.



Reading Notices.

Then give every two or three hours from a half to a teaspoonful, according to age and emergency, of the following:

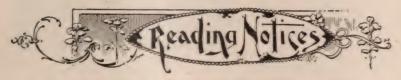
R	Aquæ Calcis1	ounce.
	Mistura Cretæ1	ounce.
	Syrup Acaciæ1	ounce.
	Bromidia	ounce.
	Bismuth Sub Nit	

M. Sig: Shake well before using.

Repeat the oil every morning till it operates, and follow it as before. If the Bromidia in this formula is not sufficient to insure quiet and sleep, I give enough of it in addition till it does, always properly diluted. In extreme bad cases, with "brain symptoms," I depend entirely on Bromidia, and it has never failed me. I have given it in half teaspoonful doses every hour till the desired effect, with no unpleasant results.

Observe proper rules of feeding and bathing and the little patient is usually all right in a few days. Since I have adopted and followed this course, now about twenty-five years, I have not lost a case of cholera infantum or summer diarrhea, and my records will show that I have treated, probably as many as any

one in the same section of country.



J. A. LARRABEE, M. D., Pres't Faculty Hospital College of Medicine, Assistant Surgeon, U. S. A., Prof. Obstetrics and Diseases of Children, etc., Louisville, Ky., writes: "I have used maltopepsine (Tilden's) to great advantage in my infantile practice, and find it to be everything that you claim.

DR. C. Morrosa. 1045 Mission St., San Francisco, Cal., says: I have used S. H. Kennedy's Extract of Pinus Canadensis (White) in one case of gonorrhea. A lady had a discharge for months, and had been treated with iodine crystals in water as an injection with no effect except to soil her clothing. I gave her a bottle of S. H. Kennedy's White Pinus Canadensis giving directions for use as injection internally, gave fluid ext. prunus virg. as a tonic. She lives in Alameda, and only yesterday she sent me some other sufferers, telling them I cured her. I will say in conclusion, that your preparations are good: I have used them in some minor cases that I did not think worth while noting at the time, always with success.

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NEW INSTRUMENT DEPARTMENT.

A NEW RECTAL SPECULUM.

THOMAS CHARLES MARTIN, M. D.

This two bladed speculum is designed especially for use on the rectum. The form and rectum. dimensions of the blades been carefully planned with a consideration for the dimensions and form of the parts upon which they are to The blades be used. proper are five centimetres in length, they are very shallow and their edges are given a decidedly inward turn; their acorn-like initial extremity contributes to the instrument's facility for introduction, while at the same time especially qualifies it to be selfretaining; the inturned edges of the blades per-



Fig. 1.

mit of easy rotation when in the bowel; the shallowness of the blades provides for the greatest possible exposure of the walls of the rectum when the blades are separated. The length of the blades has been determined by a consideration for the depth of the neck or lower contracted part of the rectum. The blades are set at the ends of long outreaching and scending arms-a feature which has given a great deal of satisfaction when the instrument is in use. The length and curves of these arms afford four positive advantages: lying flat along the surface of the nates, as they do,



Fig. 2.





DR. GERMAIN SEÉ.





RECENT ADVANCES IN THERAPEUTICS.*

BY JOHN E. DARBY, A. M., M. D., CLEVELAND, O.

Possibly I cannot occupy this hour any more profitably than in inviting your attention to some of the advances made in the past few years in therapeutics. This most important branch of medical education has kept even pace with the other departments in the wonderful progress which medicine has made and is making to-day. Possibly it has not at all times received the prominence which it deserves and demands in the curriculum of medical education.

I can conceive that the study of medicine from a purely scientific standpoint, particularly when connected with a hospital practice, might generate to some extent the feeling that the patient was made for the physician; that every case of disease was a scientific problem for him to solve; that his duty was to make a correct diagnosis; to be confirmed or corrected by a careful scientific post-mortem examination. If perchance the patient recovered, the case was unsatisfactory, as the opportunity of confirming the diagnosis was lost, and an element of doubt might exist in the case. I am informed that such a notion seems to exist

*An address delivered before the Alumni Association Medical Department, W. R. U., on May 20, 1896.



(with how much truth I am unable to say) in the great medical centers of Europe. And I have sometimes thought that a similar notion was finding a lodgment in some of our American schools. Of course where this feeling exists it would lead to the exaltation of physiology, pathology and pathological anatomy to undue importance, while pharmacology and therapeutics would suffer somewhat in comparison. But the American idea has been, and I believe that you, gentlemen, the alumni of this college, will testify to its truth,—I say the American idea has been that the physician was made for the patient. That his duty was to heal the sick, relieve suffering and save life. A high and holy mission surely.

Therapeutics is largely indebted to the collateral branches for the advance which it has made.

Chemistry has isolated the active principles of drugs, and determined their composition and chemical relations.

The advances of Physiology, Histology and Pathology have given us more definite and exact knowledge of the normal functions, and the causes and conditions of morbid processes. The microscope and bacteriological laboratory have opened up broad fields of great interest to the profession and of great importance to mankind.

Pharmacology is giving us positive knowledge of the effects of drugs on the animal economy, their destiny in the body, the changes which they undergo if any, whether retained or excreted, and if excreted where and how, demonstrating by experiment the effects produced by their presence in, or their passage through the body, thus confirming or correcting or possibly reversing our preconceived notions, which had been obtained largely by observation and experience.

The pharmacological laboratory is doing for therapeutics what the physiological and pathological laboratories have been doing for medicine, giving us facts for fancies, and raising therapeutics above the plain of empyricism to the dignity of a science.

Until recent years, the practice of medicine was very largely empyrical. Uncertainty or ignorance of the etiology of morbid processes, and of how drugs would correct or



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relieve them, medicine was compelled to wage a defensive warfare.

To cure disease with certainty, the physician should know what the nature of the disease is, and what the action of his remedies will be. When these are positively known, therapeutics becomes a science, but when either is uncertain, it is more or less an art.

The problem presented to the physician in almost every case of disease has so many modifying factors connected with it that more or less of uncertainty will be connected with it. The age, sex, temperament, habits, occupation, idiosyncracies, inherited conditions of the patient as well as the character, stage and severity of the disease are all modifying factors, and together present a problem with too many uncertain or varying quantities to be reduced to scientific accuracy.

The principles of therapeutics are fast assuming scientific accuracy, but its practice must for the present, at least, remain more or less an art, and success in the treatment of disease will largely depend on the skill, and care, and sound judgment of the physician.

With a more definite knowledge of pathology, the treatment of many diseases has been greatly modified.

The value of *antipyretics* in febrile and inflammatory conditions has been more highly appreciated since the discovery of the tissue changes caused by high temperature.

Zenker demonstrated that muscle undergoes a peculiar granular degeneration in typhoid and other fevers.

Liebermeister found that the liver, spleen, kidneys, voluntary and involuntary muscles, and even the nerve centers undergo a granular degeneration during a continued pyrexia, and these lesions were constantly present in those who had suffered from high temperature during life, regardless of the nature of the primary disease.

An interesting fact in this connection is that all the symptoms of acute pyrexia can be produced in animals artificially.

It was formerly supposed that the restlessness, stupor, coma, convulsions and death in fever was owing to poisoning the nerve centers by the accumulation of effete



material in the blood caused by the checking of the secretions and the rapid metamorphosis of tissue. In proof of this position was the fact that the crisis of a fever was often attended with an active elimination through the skin, kidneys, bowels or other emunctories.

Dr. H. C. Wood, in a series of experiments along this line found, that when small animals as cats or rabbits were confined in a box and artificially heated, that the restlessness, stupor, coma, etc., increased as their temperature was raised; and on removing them from the hot box and plunging the insensible and apparently lifeless animal into cold water and abstracting the heat—as the temperature approached normal, the coma would disappear, and in a few moments the apparently dying rabbit would be skipping about as though nothing had happened.

But this matter is no longer a subject of experiment. The fact is demonstrated every day in the treatment of febrile and inflammatory troubles, accompanied with high temperature, when by the use of the cold bath or other appropriate antipyretics, the temperature is lowered; we see the flickering pulse become fuller and stronger, the restlessness, delirium and coma followed by a return of reason, or by a quiet, restful sleep. To-day the physician recognizes the pathological changes which must follow a prolonged high temperature, makes judicious use of antipyretics and saves tissue, saves strength, lessens danger and saves life.

A few years ago, to place a fever patient in a cold bath would have been considered rank malpractice, not by the laity alone, but by many of the profession. To-day the physician who neglects to use antipyretics might justly be charged with neglecting one of the most efficient remedies for the relief and safety of his patient.

But it is not only in the more intelligent use of drugs for the relief of disease that therapeutics has progressed, but the employment of other remedial agents are receiving more and more attention from the profession. The importance of massage as a therapeutic measure has not been recognized by the American profession but a few years. Massage is by no means a new thing, for it has been known and practiced by the Chinese from the earliest period. The

ancient Persians and later the Greeks and Romans practiced it in some form or other. Hippocrates held massage in very high estimation, for we find such expressions as these in his writings. "It should be kept in mind that exercise strengthens, and inactivity wastes."

"The physician ought to be acquainted with many things, and among others with friction. Friction can relax, brace, incarnate, attenuate: hard braces; soft relaxes; much attenuates, and moderate thickens."

But massage fell into disuse and was forgotten during the middle ages. Attention was again called to it by Tissot and Weiborn in the latter part of the 18th century. It remained however for Mezger, of Amsterdam, and his pupils, Bergeman and Helleday, about 1873, to popularize massage and give it scientific foundation.

Massage quickens the circulation and improves nutrition, stimulates absorption, improves cell activity, and awakens muscular contractility, sooths and invigorates the nervous system and affords exercise without exhaustion.

It is indicated in a great variety of troubles, particularly in neurasthenia, neuralgia, headache, paralysis, rheumatism, torpor of liver, constipation, skin diseases, narcotic poisoning, etc.

It forms a very important element in the so-called Rest-cure of S. Weir Mitchell which he is making so popular and efficient in the cure of various neuroses.

"Rest," says the author of this treatment, "means a good deal more with me than merely saying 'Go to bed and stay there.' It means absence of all possible use of brain or body." The rest-cure consists essentially, of keeping the patient passive, in a recumbent posture. Keeping up nutrition by frequent feeding, and giving passive exercise by electricity and massage.

In this way all the physiological functions of the body, the circulation, digestion, nutrition, secretions and excretions are improved, all the tissues exercised and strengthened without exhausting the strength of the patient. A most valuable adjunct for the relief of a great variety of troubles.

There are many other therapeutic agencies which are claiming attention; but time will not permit us even to refer

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to them here. We cannot leave this subject however without calling your attention to two lines of therapy which are attracting much attention of the profession to-day. I refer to organic or cellular therapy and serotherapy.

And as these methods of treatment are so closely allied to each other, and are so dependent upon cell function, you will excuse a little digression while we examine the structure and function of the cell in the animal economy.

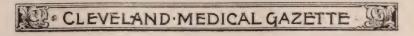
The leucocyte or white blood corpuscle is a perfect cell consisting of cell wall and contents including nucleus. It is a vital unit of the organism, and its origin is referred to the involution of germinal potentiality which existed in the original impregnated ovum, and like all the other elementary tissues it has been evolved through the regular process of segmentation.

The leucocyte and lymph corpuscle are identical, and from these the pus corpuscle has been formed under pathological influences. One function of the leucocyte is to take up the proteids formed in the alimentary canal, and by mixing them with the cell blastema of the leucocyte, under the molecular influence of the nucleus, converting them into nuclein or assimilable tissue pabulum. This nuclein is the element nuclein by virtue of which the cell grows, develops and reproduces itself, and its function is to utilize the pabulum within its reach. When this nucleized pabulum is received by the individual tissue cell of the various structures of the body it is active in physiological function.

According to Dr. Vaughn, of Ann Arbor, it would seem that by virtue of their nuclein the different organs manifested their individual functions, and therefore that the nucleins from different sources would be very different.

Chemically, the nucleins are proteid bodies, containing a large amount of phosphorus, existing in the form of nucleinic acid, this acid being the same in all nucleins, but combining with different bases gives us different resulting nucleins. The nuclein molecule is wonderfully retentive of life, and possesses marked powers of self-recuperation after being partially decomposed.

In general they are insoluble in dilute acids and resist peptic digestion.



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Some of the nucleins have germicidal properties more powerful than corrosive sublimate. The germicidal constituent of the blood is nuclein furnished by the polynuclear white corpuscles. Being thus germicidal they can be used to arrest or prevent the growth of pathogenic germs in the animal body.

Nuclein seems to be non-poisonous, large doses having been administered both by mouth and by hypodermic injection with little or no unpleasant reaction. In some cases it has caused some elevation of temperature with increased blood pressure and a slight local reaction, but not to any dangerous extent.

Dr. Vaughn thinks that for immunity and cure of infectious diseases, we must look for, first, non-poisonous germicides of cellular origin, and, second, substances which stimulate those organs whose function it is to protect the body against these diseases. He thinks nuclein fills both of these demands.

We find then that all vital activity has a cellular origin, that cells are tissue builders as well as germicides, that when there is impaired cell activity, there is impaired function; that an equilibrium of these activities constitute the condition of perfect health.

From this review of the physiological functions of cells in the animal economy, we can easily determine their indications as therapeutic agents.

When Brown-Sequard first announced the discovery or established the fact that the testicles of young animals contained chemical substances which possessed high dynamogenetic properties, the novelty of the discovery and the claims which he made for the new remedy were so great that the whole matter was received with great incredulity, and his reputation as one of the most eminent physiologists and neurologists of his time could not protect him from ridicule. But subsequent researches and investigations have confirmed the claims of Brown-Sequard, and his name will go down in the annals of medicine as the pioneer of cellular therapeutics. In 1878, Phil Schreimer, a German chemist. discovered and analyzed in testacular juice, a substance called spermein; and later, Prof. Poehl discovered that



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spermein was an organic base with characteristic properties, and that it can be obtained from almost any organ, especially the reproductive organs of animals, the thymus and thyroid glands, pancreas, spleen, etc. The announcement of Prof. Poehl's investigations was received with great interest, and was soon followed by clinical experiments by some of the most eminent physicians, who all agreed that spermein was the active principle of Brown-Sequard's fluid, a first-class stimulant and a therapeutic agent of unlimited value.

The result of these observations have led to the use of the various glands or tissues in some form, for the relief of pathological conditions dependent more or less directly upon disturbances of these organs.

As cooking would doubtless impair the nuclein, the glands should be administered raw or uncooked. An extract obtained with glycerine is often used. The nucleins are also used.

Nuclein or spermein has been used for a great variety of troubles: As a general tonic and tissue builder in wasted conditions; as a blood-maker in anæmia; as an antiseptic in diphtheria, scarlet fever, typhoid fever, and septic conditions generally.

A glycerine extract of the brain and cord have been used in neurasthenic conditions, neuralgia, locomotor ataxia, and other nervous troubles. An extract of the kidney for nephritis, by Jassier and Fraenkel. An extract of the suprarenal capsule was used by Shoemaker and Wood for Addison's disease, which was greatly relieved. Preparations of the thymus gland has been used in Basedow's disease, as well as simple goitre.

Mikulicz reports that in ten cases of goitre and one of exophthalmic goitre, he obtained most encouraging results from doses of ten to fifteen grains of minced thymus.

Perhaps the most decided results have been obtained from the use of the thyroid gland in myxœdema. In this connection some very interesting cases are reported, illustrating the effect of these extracts on normal glands. Several cases are reported where over-doses of the thyroid, when administered for myxœdema, have produced the characteristic symptoms of Basedow's disease. The symp-



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toms produced were tachycardia, instability of pulse, elevation of temperature, insomnia, agitation, polyuria, glucosuria and partial paralysis.

Solis Cohen has observed that Thyroid extract has a decided diuretic action and has employed it with satisfaction as a diuretic.

Bone marrow has been given with decided advantage in anæmia. Prof. Frasier reports a case of pernicious anæmia cured by bone marrow after iron and tonics had failed to benefit. Dr. W. G. Biggar reports a case of leukæmia cured by bone marrow.

As to sero-therapy, it is the logical outcome of the germ theory of disease, which itself grew out of the discovery of cell agency in fermentation, the discovery of living organisms in pus, the conveyance of germs through the air, and their appearance in the blood and tissues. Then came the principle of systemic infection from germ growth. To oppose this physiologically came the discovery of the germicidal properties of blood serum.

The employment of blood serum as a bactericidal agent, and the modification of the blood by means of bacterial products, and the production of immunity from infectious diseases, is an exceedingly interesting field of investigation, and one of the highest importance to the profession and to mankind.

The fundamental principle is the alteration of the serum in such a manner as to make it destructive to certain specific bacterial products. This method of research has been applied experimentally to several dangerous infectious diseases.

Tetanus was one of the first maladies to be thus studied. Behring has conducted a series of experiments with a view of first rendering an animal immune to tetanus by inoculation with the toxin elaborated by the bacillus of that disease, and secondarily utilizing the serum of the immunized animal as a curative remedy for the established disease in another animal or in man.

Immunity is secured by successive injections with the toxin in gradually increasing doses. Behring believes he has proved that injections of the immunized serum into the subjects of tetanus will cure that disease.



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Cholera is another infection which it is sought to control in the same manner by the use of anticholerin. A trial in a Hamburg hospital limited to serious cases is said to have given encouraging results.

Diphtheria has been extensively treated with the antitoxin of that disease.

In a summary of the clinical evidence in favor of this mode of treatment of diphtheria made by Prof. Welch of Johns Hopkins University, Prof. Welch says, "The principal conclusion which I would draw from this paper is that our study of the results of the treatment of over 7000 cases of diphtheria by antitoxin, demonstrates beyond all reasonable doubt that antidiphtheritic serum is a specific curative agent for diphtheria, surpassing in efficacy all other known methods of treatment for this disease. It is the duty of the physician to use it."

Prof. Welch very truly and forcibly remarks, "The discovery of the healing serum is entirely the result of laboratory work. It is the outcome of the studies of immunity. In no sense was the discovery an accidental one. Every step leading to it can be traced. And every step was taken with a definite purpose and to solve a definite problem."

PATHOLOGIC CONSERVATION.*

BY HERSCHEL D. HINCKLEY, A. M., M. D.,

Professor of Surgery in the Cincinnati College of Medicine and Surgery.

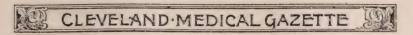
Nature has its compensations.

Physical forces correlate. That physical and vital forces correlate is believed by many.

When a weight is raised from a lower to a higher plane, force disappears; when it falls back, equal force in some form reappears.

When matter is raised from the low plane of the inorganic through vegetable and animal nutrition to the high plane of the organic, force disappears. When it falls back through oxidation of tissue, force reappears as (1) animal heat and (2) as vitality.

^{*}A Paper read before the Ohio State Medical Society, May 27, 1896.



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Compensatory to tissue oxidation is tissue construction, (nutrition.) When constructive and destructive metamorphosis of tissue are in equilibrio, there is health.

Hand in hand with destructive processes are constructive processes, each equally essential to life. Without destruction there can be no life, without construction life must be short.

This may be called physiological conservation.

May it be true that such a law prevails in disease? May it be that many of the phenomena which we have been accustomed to regard as destructive are really conservative? May it be that whenever a morbid condition exists, there walks hand in hand with it a conservative process? May it not be higher wisdom to study pathologic conservation rather than rush in blindly with our "remedies" and interrupt processes that we have not interpreted?

A foreign body lodges in the eye. Profuse lacrymation is Nature's method of washing it out. An irritating substance is in the alimentary tube; a flow of serum and a diarrhœa perform the same part.

The stomach is engorged with undigested or indigestible food, and vomiting occurs.

Few, we hope, would attempt to constringe the lachrymal duct, "check" the bowels or arrest vomiting, but would rather operate in Nature's lines and assist in the expulsion of the offending substances. Hemorrhage causes syncope, and syncope is Nature's method of controlling hemorrhage.

For 2,000 years, "too much blood in the part" has served to justify venesection, local depletion, blistering, and all manner of counter-irritation in the treatment of inflammation.

What does modern pathology teach?

Septic micro-organisms invade a part. At once there is excited an increased circulation, an inordinate flow of blood through the part. Then follows a slowing of the blood current, congestion, an inordinate amount of blood in the part. The increased activity in the circulation brings an unusual number of leucocytes to the part; the slowing of the current and dilatation of the capillaries permit of their migration and of the effusion of serum, and enable them to



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perform their phagocytic functions, otherwise every inflammation would go on like a spreading gangrene to the destruction of the organism.

A few years ago at a meeting of the American Surgical Association, a distinguished professor of surgery declared that "the essential of inflammation was too much blood in the part, and that the essential of treatment was to abstract the blood from the part."

This tersely expresses the key to all past methods of treatment of inflammation. What a blessing that all the devises for keeping the "too much blood" from the part have proved failures!

The query suggests itself, if any of the extinct species owe their extinction to having developed a degree of medical skill that enabled them to control inflammation by preventing the afflux of blood to the part?

What can we do for inflammation?

The word inflammation, is derived from inflamare—to blaze.

A fire breaks out in the city, it blazes. The signals are sent out through the wires—the nerves. The fire engines rush through the streets—increased circulation. They reach the scene of conflagration and stop—congestion. The water is turned on—effusion of serum. The firemen rush in—migration of leucocytes. What can WE do? Keep out of the way of the fire department!

If we feel constrained to do something to assist, let us be sure that we are operating along the same lines as the fire department, and in no way obstructing its operations.

Suppuration is a conservative process. If it were not for suppuration, every case of inflammation too intense to terminate by resolution through phagacytosis, would prove fatal.

And yet within the last decade the doctrine was widely taught that inflammation should be treated with large doses of quinine to prevent the migration of the leucocytes!

Happily, neither large doses of quinine nor anything else that we know of will prevent the migration of the leucocytes, which shows that nature is mightier than man, and that pathologic conservation may triumph over both disease and doctor.



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The most conspicuous phenomena in pneumonia are increased frequency of respiration, purely conservative, to compensate for diminished breathing space; accelerated pulse, purely conservative, to compensate for the mechanical obstacle to the pulmonary circuit; and pyrexia.

Just how fever is conservative, may not yet be apparent, but nothing is more certain than that those cases of pneumonia marked by a fair degree of fever, say 103-5, do far better, are more likely to terminate by crisis and make a more prompt and satisfactory convalescence, than those where the temperature is low, or still worse, sub-normal.

And yet some will give opium to slow the respiration, some will give veratrim veride or aconite to slow the pulse, and others will give antipyretics to reduce the temperature!

Is it any wonder that pneumonia is so fatal when we thus cross purposes with Nature?

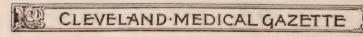
Quite recently a prominent medical man reported to a medical society, a large number of cases of pneumonia treated with large doses of quinine, ten to forty grains, "to reduce temperature, etc.," with a mortality of 26%. He did not seem struck with so terrible a death rate and his treatment passed unchallenged by the society.

One member remarked that the great fatality was probably due to complications, but no one suggested that the complications might be due to the medication. Might not such doses of quinine produce complications in a well man?

Keep the surface warm to aid the capillary circulation and take that much strain off the heart; give abundance of cool, fresh air to enable the minimum of respiration to oxygenate the blood; give plenty of water to keep the skin and kidneys secreting actively to eliminate the toxines, and not 4% will die of cases under 50 years of age, and all the cases quoted were under that limit.

Would it be kind to intimate that the treatment killed the other 22%? Certainly not, but it might be just.

What of fever? Shall we always continue to regard fever as a destructive agent? That it is a product of excessive tissue waste is certain. That it frequently marks the intensity of the disease is equally certain, but that fever itself is destructive, admits of serious question.



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What is fever? To answer preternatural heat, is begging the question.

Inflammation is wisely defined to be "the response of living tissue to injury."

May not fever, with equal propriety, be defined to be "the response of the living organism to injury"?

If the tissues do not "respond" to injury, there is tissue destruction—necrosis. If the organism do not respond to injury, there is death.

Everyone knows how fatal cases are that are marked by sub-normal temperature. The vitality is so low that it fails to respond to the injury.

There is a striking parallel between an animal organism and a steam-engine. Each by the combustion of fuel liberates and utilizes force. When there is an unusual demand upon the resources of an engine, as in drawing a heavy train up a steep grade, the fireman feeds the flame. When the human engine is put to the inordinate trial of carrying the organism over the course of a disease, is it wise to damper the fires, to depress that process which of all others may most strictly be called vital?

It is not intended to teach that we should stand idly by and watch with greater or less indifference the conflict between disease and the organism. Nature's methods are often insufficient, and require prompt and energetic assistance.

The effusion of serum in inflammation is certainly conservative, but when it takes place within the unyielding cavity of the skull it becomes a menace to life and demands the use of the trephine; when it takes place within the pleural cavity and threatens respiration, the trocar.

Suppuration is conservative, but it is far better that pus should be promptly evacuated by the surgeon's method than to wait upon Nature's tardy and inefficient way.

Tissue formation is conservative. In this way nature immobilizes a joint and permits a synovitis to get well; but it is not desirable that all inflamed joints should become anchylosed, and we have better methods of immobilizing joints than with plastic lymph.

That the time has come to proclaim the dogma that

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"every destructive process has its corresponding conservative process" may not be accepted; but it is certain that the time has come "to put away childish things." The time has come to no longer look upon all the phenomena that present themselves during disease as so many evils to be abated. The time has come to cease prescribing for symptoms. The time has come to study nature's methods and to conform our practice to her lines. The time has come to cultivate a medical philosophy based upon a broad and comprehensive view of organisms in health and disease.

Philosophy has often gone wrong and may again. The philosopher who gazed at the stars fell into the ditch, but that was far better than to have always delved in the ditch while the star bespangled firmament remained unnoticed.

THE CREDIBILITY OF AUTOPSIES IN OBSCURE CASES OF RAPID AND SUDDEN DEATH.*

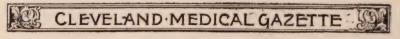
LEGAL PHASES.

BY MR. HOWARD A. COUSE, CLEVELAND, O.

Section 1221 of the Revised Statutes of Ohio, reads partially as follows: "When information is given to any coroner that the body of a person whose death is supposed to have been caused by violence, has been found within his county, he shall appear forthwith at the place where such body is; shall issue subpænas for such witnesses as he deems necessary; administer to them the usual oath and proceed to inquire how the deceased came to his death, if by violence from any other person or persons, by whom * * together with all the circumstances relating thereto."

The language of this section, so far as it relates to witnesses, is comprehensive. The coroner may call "such witnesses as he deems necessary." This includes not only eye witnesses and persons who have personal knowledge of the occurrence, but it authorizes the coroner to employ medical experts to make an examination of the body of the deceased and to testify of their findings.

Read before the Medico-Legal Section of the Cuyahoga County Medical Society.



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When a physician has made a post mortem examination at the instance of the coroner and is called upon to testify thereof in court, he becomes one of that class of witnesses known as experts. Ordinary witnesses, with a few exceptions, are not permitted to testify as to their opinions. They must state the facts within their knowledge and let the court and jury do the thinking. But in cases where the question is such that ordinary men are not capable of forming a correct judgment upon the facts as proved, then the opinions of men specially skilled in that branch of knowledge, are admitted in evidence. Expert witnesses may also testify to facts which lie within their knowledge: or to state it differently, witnesses to facts, in a proper case, when they possess the qualifications of experts, may testify as to their opinions.

The Supreme Court of Pennsylvania once decided that experts could only base their opinions on facts proven by other witnesses whose testimony was heard by the expert; or when the facts were furnished to the expert by means of hypothetical questions. (43 Pa. St. Reports, 9, 13, 14). But this decision has not been followed and is not now the law anywhere.

The medical expert testifying of a post mortem examination is generally a witness both as to facts and to opinions. In describing the examination which he has made, and the condition of affairs which he has found, he states facts. He must first state these facts before he can be permitted to express an opinion thereon. These facts or data on which the opinions of experts are based must be definite and not merely speculative. A physician was once asked this question: "For the purpose of arriving at a correct conclusion in the case of the death of a person, where you don't know to your own satisfaction, what caused the death, how long a time should two men give to a post mortem examination? And would four hours be sufficient?" The witness had not been present at the post mortem and had no knowledge of the case or of the kind or extent of the examination required. The court held that the question was, as to this witness, speculative and general; that it did not contain definite data or facts on which to base an opin-



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ion, and as the witness was not otherwise in possession of information, the question was incompetent. (State vs. Pike, 65 Me., 111.)

When the court has once decided that a witness possesses the qualifications of an expert, the admissibility of his testimony does not depend upon the thoroughness or care with which the examination was made. In one case, (a murder case) the theory of the prosecution was that death had been caused by concussion of the brain resulting from a blow on the head. The physician who had made the examination testified that he had not opened the skull and examined the brain. On this account the defense objected to his being allowed to give his opinion as to the cause of death. The court, however, overruled the objection and held that this did not affect the admissibility of the testimony, however much it might affect its weight and credibility with the jury. (Ebos vs. State, 34 Ark., 520.)

In another case the question was whether death was caused by external violence or by internal disease. Physicians were allowed to express their opinions thereon, although their examination was not sufficiently thorough to enable them to state that no other cause existed, than the one they assigned, to which death could be attributed. (State vs. Porter, 34 Iowa, 131-134.)

The degree of credit to be given to opinions of medical experts as to the cause of death, in particular cases, is a question exclusively within the province of our medical gentlemen, and I can only say that the practice of obtaining their opinions in such cases is very ancient. It has appeared as a common provision in the criminal laws of civilized nations since the 16th century and at the present time, is almost universal. This shows that in the eyes of law-makers, at least, the custom has been valuable and productive of beneficent results.

REPORT OF CASES OF INSTANT DEATH FROM INJURY TO THE BRAIN.*

BY A. J. BROCKETT, B. S., M. D., CLEVELAND.

I. At the battle of Missionary Ridge, November 24th, 1863, a friend of mine, an officer, while carrying a message from one point in our lines to another, had to pass a section where heavy cannonading was going on by the enemy, to prevent a flank movement of our forces. He was knocked from his horse by the force of the concussion produced by a shell, which, passing near his forehead, exploded further on. Soon after, he recovered from the shock sufficiently to be able to deliver the message.

From the time when he received the shock he complained of a numbness and a burning, prickling sensation in his forehead, with soreness on pressure or movement of the scalp. He continued in the service till the close of the war, and was discharged with his regiment. He felt a dullness all the time, and a dizzy feeling if he moved his head quickly, with occasionally a sharp pain in the anterior lobes of the brain. He was married and had one child, and after the close of the war entered the ministry, for which he had previously studied. He continued preaching until the summer of 1885, when he died instantaneously, having no other disease than that above referred to.

During all the years from the time he was injured till the time of his death, he complained of a bad feeling in his head, and sharp pains with dizziness on slight exertion, was somewhat nervous and could not apply his mind to hard study, but continued able to do sufficient mental work to carry on his preaching. He could do no physical labor because it increased the bad symptoms. He had a peculiar old and wrinkled look, making him appear fifteen to twenty years older than he really was. He had full use of his limbs, but his flesh had a strange cold, clammy feeling, and he lost all virile power some years before his death. He had a fair appetite and moved about fairly well. His pupils were largely dilated.

The post mortem revealed the following: After *Read before the Medica-Legal Section of the Cuyahoga County Medical Society, June 18th, 1896.



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removing the calvarium I found a cavity in the anterior portion of the brain affecting both lobes, circular in shape and in diameter nearly two inches, and extending in depth nearly two inches. On looking into it, it had the appearance of a dried rotten egg, having fibers crossing it in different directions. Examining it with the finger it had a spongy feeling; and in cutting through the brain I found it to be diseased a fourth of an inch beyond this cavity, which shows that the disease had progressed slowly to a point where death ensued, as the result of injury from concussion produced by the shell.

II. In the early spring of 1878 I attended the birth of a male child, of nine pounds weight, which seemed to be in good health. It nursed well and grew, but the motion of rocking would at all times produce a sharp cry, and it would seem afraid and would clasp tightly anything near and show great fear; hence the only way to put it asleep was to lay it on its back. Its bowels and kidneys were normal in their action. The child thrived, having no manifest appearance of disease.

On the afternoon of November 28, 1878, the parents of the child were entertaining a few friends, myself included. Sitting by the side of the lady holding it, I was amusing the child, when it threw back its head, gasped with a little quivering of the lips and was dead almost instantly.

The post mortem examination showed an abscess of the posterior portion of the brain, which had ruptured, diffusing the contents so as to cause instant death.

DAMAGE TO BRAIN WITHOUT INSTANT DEATH.

III. At the battle of Resaca, May 13, 1864, about 9:00 a.m., a soldier was brought to our temporary station, for giving immediate relief to the wounded in the field. I made a hasty examination and found that an ounce ball had passed completely through his head, just above the ears. I thought he would die in a short time and placed him near the dead, with his knapsack under his head, covering him with a blanket. He was pulseless and insensible to all impression, and his body cold. His pupils were fully dilated, responding neither to light nor friction, and had a

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deathlike appearance. His breathing was about 8 or 9 per minute, and about once in five minutes a peculiar groan (involuntary) was caused by the muscular forcing of the air from the lungs. He lived in that condition until the morning of the 15th, when I caused him to be placed in the first ambulance which came in to remove the wounded to the field hospital. The first jar of the ambulance caused the collapse of the brain and death.

32 Hawthorne Ave.

IS A CHANGE NEEDED IN THE LAWS RELAT-ING TO THE CORONER'S OFFICE?

BY E. ROSENBERG, M. D., CLEVELAND, O.

Before entering into an analysis of this question, I would like to preface it by the statement, that on discussing this subject, I do not intend to touch any question of personal interest or reflect on the present administration of the coroner's office of our city. My intention is only to give an unpretentious opinion—from a medical point of view—on the working conditions of the present system in our state. Especially do I wish to interest our medical societies in behalf of this matter. Such bodies ought to be most competent and called upon to decide whether this institution, as it is framed by the laws of to-day, answers the demands of our enlightened age, particularly if it comes up to the requirements of "legal medicine" in its present exalted standing.

The history of the origin of this institution and its adaptation to the laws of the United States, is supposed to be known by all of us, and therefore needs no comment. But all the more must be said pertaining to the present structure of this office, which did not get the legislative care it deserves, and stands to-day on the same primitive laws as erected almost a century ago (Ohio). Our professional press apprehending these antiquated conditions, has in the last few years kept up a lively agitation in favor of modifying the present laws, pointing out their detrimental effects and influences upon the administration of justice.

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Some states have already changed their laws in this direction; others prompted by the discussions and resolutions of medical societies are on the way to effect changes, and there is no doubt that the state of Ohio will also follow her sister states in the near future. Therefore, I think, that a discussion of this subject is not only timely and justifiable, but necessary as well.

The original law applying to the coroner's office of our state, in its original constitution (1802, Art. VI., Sec. 7), says: There shall be elected in each county one sheriff, and one coroner by the citizens thereof . . . they shall continue in office two years if they shall so long behave well, etc.

The jurisdiction of the office is specified and circumscribed in the statutes pursuant to that constitution, and they are as a whole still in force; at least, I was unable to detect any modifications in obedience to the spirit of the times, after perusing all the statutes applying to that office. Evidently, because the public does not attach much importance to it, and law-makers care little for considering questions involving medical points. Besides, to say the truth, the competent judge upon such matters—the medical profession—has been a little reserved and almost indifferent toward this subject.

After this deviation, let us resume our discussion upon the most important point, namely, the jurisdiction of the office in question and the requirements of the law referring to it. The jurisdiction of the coroner's office, bearing both a judicial and medical character, must necessarily embrace a dual function. This is expressed in the respective laws of every civilized country. Our law mentioned, is based on this principle, it is true, but the form of its instructions, and the carrying out of the same is in many respects very deficient, taking in consideration the requirements of modern forensic medicine, and the administration of justice.

The consideration of the judicial duties properly belongs to the domain of the legal profession (which, I hope, will give the matter special attention), therefore I am not competent to give an opinion on this point; but all the more do I wish to give a stimulus to a discussion of the second function of the coroner's office, namely, the medical.



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Being an elective officer, the coroner is elected by the people's vote without any regard to qualification, as the clever handling of the political chess-board is the main factor and moving power in the race after this very important position.¹

Now such an officer, supposed to execute laws which are also imperfect, even with the best of intentions, is, generally speaking, unfit for mastering this, one of the important public offices. Of course, one may say that the successful execution of the duties pertaining to this office does not presuppose any expert knowledge, according to the right interpretation of the law, for, if such is necessary, then there is at his disposal the examining physician, chemist and legal adviser—deputy coroner. This is a fact, but it is a fact also that the capability of these sources of advice is many times very limited, consequently not reliable, which is an open secret in the conscience of our profession.²

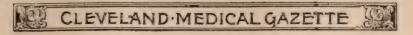
And now this brings me to one of the most painful features of the whole situation, but at the same time serves to show the justice of the criticism of the existing laws, and how the latter affect the work of this office.

There being no special provision made in regard to qualification of the medical examiner, his selection is left entirely to the private favor and judgment of the coroner. That such a proceeding, without any legal control, is always in danger of either abuse or neglect, is very comprehensible. I could enumerate many cases illustrating this, but exempla sunt odiosa, therefore let us speak only in general. Especially is this abuse possible, when we consider the anarchy of medical practice in our state (it will take many years till our recently enacted medical laws will clear the atmosphere). How are we to see the most important functions of this office successfully executed when it rests on such defective laws? Even leaving out of consideration the anarchy mentioned, we must regretfully admit that the mere pos-

¹ The present custom of putting medical men at the head of this office is, as far as I can find out, independent of our laws, as they do not contain any instructions in this respect.

² It is true that many autopsies are made by Cleveland doctors, but most of these autopsies, in their technique and in their scientific results, have little improvement over the necropsies of the days before the father of cellular pathology was born.

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session of a legal M. D., without a special training, is by no means a sufficient guaranty for the satisfactory performance of the duties required. We all know that the first and main requirement on the part of the medical examiner is the thorough knowledge of pathology,3 not in an academical meaning, not a knowledge gotten by a short college training, but in a practical sense, the measure of which we can only obtain by an assiduous working in this special line. Such qualification enabling one to make a scientific diagnosis in a given case is, for the reason mentioned, seldom met, and without this medico-legal progress is impossible and the work of justice deterred. The examining physician may be a good surgeon, clinician, or general practitioner, but this proficiency is not a sufficient guaranty of ability to successfully perform the functions confided in him. The result of such occasional service getting a case once in a year or two, will be mostly the product of an amateur, the value of which may be satisfactory in some cases, but not so on an average.

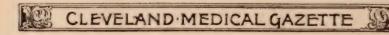
In the days when this law in question was codified, almost a century ago, the science of medicine, especially pathology, was in a very low state of development and —non-existent—consequently those conditions were reflected in the framing of the respective laws, and explain sufficiently the spirit of the same. However, it seems very strange, at least to me, that this institution has remained untouched in the midst of a brilliant culture, where everything having an influence on methods of improving the administration of justice has passed some transformation according to the needs of the day.

There are many more points calling for consideration, illustrating the wrongs and faults in our present system, but for the present let them pass, we shall refer to them as opportunity offers.

My personal belief on the whole subject is, that a reform of the conditions in which we are working to-day is not only sorely needed, but the medical and social progress of our day imperatively demand it.

3 Many a Cleveland medical student leaves his "Alma Mater" without knowing, from actual contact, the difference between a fatty liver and an hydatid cyst.

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THE MILK LABORATORY AND ITS RESULTS.*

BY H. HENDRIXSON, M. D., COLUMBUS.

Mr. President and Members of the Society:-

In presenting the subject of Milk Laboratories for your consideration I am aware their technique is not generally well known because the laboratory plan of furnishing pure or modified milk for infant feeding is of somewhat recent date, yet, it is a progressive subject and coming to the front. In presenting it I cannot boast of discovery in chemistry, bacteriology or electricity as a Pasteur, a Koch or a Ræntgen, nor even that I have spent much time in laboratories, but have spent many years in the councils of my profession and the homes of the sick; guided by a sentiment like that of Paracelsus when he said "True art is not so much revealed by knowing as by acting."

In this active age of scientific discovery, as we know more than our fathers did of the etiology of disease, we must be on the alert to discover and apply agents to combat diseases as fast as causes are discovered. Bacteriological organisms which are known to be causes of most diseases of infants and childhood, and milk their principal medium of culture and dissemination, call for means to prevent or overcome the effects of pathogenic micro-organisms.

Infant feeding is becoming more important as the aptitude for maternal nourishment diminishes; because, perhaps, mothers become more and more subjects of neuristhenias and other weaknesses; or, of the child's idiosyncrasies, hence, the search in boundless fields of pediatric medicine to find some adequate substitute for mother's milk.

Dr. Edson, (Hygiene) states that cows' milk, though sterilized, may carry disease germs, particularly tuberculosis. Yes, but does not mother's milk do the same? Perhaps, as some think, we have a prophylaxis in the action of the gastric ferments on the tubercular bacilli; yet, I confess, I would rather not fight the enemy that way. Dr. Cooke, (College and Clinical Record) says, in connection with infantile disorders, that milk should be supplied from a healthy herd and not from one cow, because the mixture becomes a dilution of the pathogenic virus.

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Dr. Leeds in an article in the Annals of Hygiene, March 1894, calls attention to the fact, as he believes, that milk rendered practically free from bacteria by complete sterilization, not modified otherwise, is not particularly adapted to infant nutrition, because it coagulates the albuminoids and renders the casein more susceptible to the action of the gastric ferments, rendering the curd hard and massive rather than flocculent. While he desires the milk as free from micro-organisms as possible, he prefers pasteurization to complete sterilization.

Dr. Koplik, (New York Medical Journal, Feb. 4, '94) published a highly interesting paper on the sterilization of milk at low temperatures and the equipment of milk laboratories for infant feeding. Also, (same Journal in 1892) Hutchinson says in his experience in the Brooklyn District Dispensary, that the proper dilution and chemical modification according to methods suggested by Arthur V. Meigs and by Dr. Rotch that milk sterilized for 40 minutes at a temperature of 212° F. is the very best material that can be employed for artificial feeding of infants, especially during the summer months.

Rowland Godfrey Freeman, M. D., Pathologist to the Foundlings' Hospital, N. Y., etc., in a paper read before the section on public health, New York Academy of Medicine, January 10, 1896, discusses the significance of micro-organisms in milk, and says, "Milk contains no bacteria as it exists in the udder of a healthy cow. * * * Bacteriological examination of ordinary milk as sold in cities shows a most surprisingly large contamination with micro-organisms. There are several million present in each c. c., (15 drops) and as many as 15,000,000 in each drop, even while the milk is yet sweet." Then he asks, "What harm do they do?" He then discusses the non-pathogenic and the pathogenic germs and how they get into milk. That the nonpathogenic do but little more harm than cause the milk to sour sooner by their presence or products. multiply rapidly when introduced by dirty methods at the dairy farm, improper slow-cooling and transportation. That milk drawn by clean methods, cooled rapidly and delivered within twelve hours, contain only 10000 as many bacteria.

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But, the same dirty methods which would allow so many non-pathogenic microbes to get into milk, would allow the pathogenic microbes to enter through dried fecal matter on the udder, hair, hide, or saliva, or, from the dirty hands of the milkman, contaminated water with which the vessels are washed, the dust of the dirty barn, or from a diseased cow or a diseased udder.

Not many years ago, or before Pasteur and Koch's discoveries, (prior to 1864) the pathological effects of microorganisms were but little understood, and when the baby got sick the doctor or nurse would change its food—often to the detriment of the child, not knowing of the germ theory of disease. But now we may obtain some knowledge of the effects of pathogenic bacteria in milk by culture, stained specimens, by inoculation into animals; or, by the very costly results in milk consumers, which for the most part are children and invalids.

It is said "there is probably no better example of the methods of experimental medicine, on a large scale, than the wholesale poisoning of milk consumers" through bacteria or their ptomains. At least we know that there are many epidemics of typhoid fever, diphtheria, scarlatina, throat diseases, gastro-enteritis, etc., caused by a certain milk supply.

In many cases the pathogenic germs have not been found in any sample of milk examined, as was the case in a recent epidemic of typhoid fever in the northern section of our city, last February, yet the origin of the fever in a large majority of the cases was traced by health officer Dr. D. N. Kinsman, to milk supplied by a dairyman in whose family were cases of typhoid fever. The typhoid bacilli were not found in the milk or the dejections. But, the bacillus coli communis was found in some cases, which is evidence of fecal contamination. The epidemics in Manchester, England, Stamford, N. Y., Montclair, N. J., and other places have been noted for the absence (or not found) of typhoid bacilli; yet, the clinical evidence and source of the poison is unmistakable.

Among the pathogenic organisms often contained in milk is the bacillus tuberculosis. This may result from

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tuberculous cows or careless tuberculous dairymen. It is said by the use of tuberculin it has been shown that fully 7% of the cattle of N. Y. are tuberculous.

I am informed that it is difficult to find consumption in cattle by physical examination; but many veterinarians think we have a sure test in tuberculin. Prof. White, of the O. S. U., failed to obtain proof of tuberculosis in a suspected cow by the use of a specimen of tuberculin obtained from Washington, D. C. The cow was then killed and a microscopical analysis showed abundance of tubercular bacilli.

Now that it is generally believed pathogenic microorganisms do exist in milk, causing much sickness and fatality among children, especially during the hot season, which is most favorable for their culture, it would seem to fall to the lot of physicians to adopt some plan to exterminate or reduce to a minimum the effects of these pestiferous microbes. In that direction our noble profession is working. Of all the substitutes for mother's milk that have been tried, it is believed that the best is cow's milk, or some modification of it, and it becomes all important to have the milk pure. In this connection, the food of the cows, as affecting the milk produced is of interest. But the ideal plan is to have milk depots or laboratories established in every large town and city, under the scrutiny of physicians and boards of health as to the milk supply, and the modification and sterilization of the same. Then when a mother's milk is not good, or a healthy wet nurse cannot be procured, or for any reason artificial feeding is obligatory, the modified milk could be procured from the laboratory, being sold and dispensed upon prescription from the physician.

Prof. Rotch, of Harvard University, in his "Pediatrics," a work of over 1,100 pages, has devoted 135 pages to milk supply, infant feeding and results. Also, reference is had to a paper by Prof. Rotch, read before the American Pediatric Society, May 2, 1892, in which he speaks of the "value of milk laboratories for the advancement of our knowledge of artificial feeding." He endorses the Walker-Gordon laboratory established at Boston in 1892, where milk is prepared for infant feeding, as they claim, scientifically, and sold only on prescription of physicians.

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In prescribing milk from one of these laboratories, it is only necessary to indicate the per cent. of fat, sugar and albuminoids, the number of feedings, amount at each feeding, and age of patient.

Dr. Robt. T. Taylor, in a paper read at a meeting of the Medical and Chirurgical faculty of Maryland last year, compared modified milk to mother's milk, and speaks strongly against all so-called baby foods, but paid a high compliment to the Boston laboratory.

Dr. Louis Fischer, of New York, in a private letter on this subject says the ideal feeding is mother's milk. Next to the mother comes the wet nurse, and the next is artificial feeding, and in this connection says: "I believe that properly sterilized milk, or better, pasteurized milk, which is sterilization at 167° F., and that enough such milk properly prepared by Dr. Freeman's method to last 24 hours is the best. Dr. Fischer further states that these laboratories, under the scrutiny of physicians, are only wholesale sterilization factories, and save the trouble and improper sterilization in families.

Dr. Fischer also makes this statement: "That all artificially fed children suffer constipation, which, as you well know, is one of our chief symptoms of early rickets."

From reprints sent me by Prof. Freeman, in which, after discussing the contamination of milk as we usually obtain it, he strongly urges sterilized milk as the best artificial food. And where persons have not access to milk laboratories, he recommends this simple process on the principle of his sterilizer. Take any vessel capable of holding a sufficient quantity of boiling water, into which set a tin pail or other vessel sufficient to hold the milk bottle with enough scalding water to surround the bottle, cover closely and let stand 20 to 40 minutes owing to the proportion of hot water to the milk to be sterilized; then displace the hot water by cold water as quickly as possible, and when the milk is cooled, set in a refrigerator or some cool place. This is practically heating the milk to 167° F., which he asserts stops all ferments or propagation of microbes for at least 24 hours.

Tubercular bacilli may not be destroyed at 167°F.

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Indeed, Rotch affirms that they are not, even at 212°. Then they must be fought on other grounds—perhaps as suggested in a recent circular letter by our health officer Dr. Kinsman.

Now that I have suggested the necessity for some depot or laboratory, on some plan that will furnish pure milk to meet the demands of progressive medicine allow me to refer to some results of the Nathan Straus milk depot located on a pier at the foot of East 3d St., New York. Since 1893 there have been at least six others located in New York and Brooklyn.

There are three sorts of milk kept at these depots, viz: pasteurized ordinary milk, pasteurized modified milk, and raw milk. The pasteurized ordinary milk is sold in 8 oz. bottles at $1\frac{1}{2}$ cts., pasteurized modified milk in 6 oz. bottles at $1\frac{1}{2}$ cts. a bottle. The modified milk is a milk diluted $\frac{1}{2}$, then is added sugar 5 per cent and cream to raise the standard to normal. Bottles and nipples sterilized are furnished.

Awnings and seats are put up so that mothers may remain and feed their babies if they wish.

At this depot 2,500 bottles were dispensed in a week, and 34,000 during the warm season 1893.

The herd from which this milk is obtained, their food, care, etc., is under the careful inspection of the veterinary of the Board of Health of New York.

The Walker-Gordon laboratory to which I have alluded has been in operation about three years and have fed 2516 infants, besides hundreds of children two or three years old. There are two classes who usually buy this milk: the well-to-do—usually healthy, and the ill-to-do, and invariably sick. The former had good surroundings and under the constant supervision of a physician. The mortality less than $\frac{1}{2}$ of 1 per cent. The latter 997 used the milk as a medicine, and the mortality the first year was $11\frac{1}{4}$ per cent; the second year $9\frac{1}{3}$ per cent; and the third year in which this milk was sold the mortality was $4\frac{1}{3}$ per cent. Last year, 1895 I have no report. The cost of the Walker-Gordon laboratory milk is the only draw-back because it cannot be obtained by the poor who need it most.



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(Mr. Gordon writes me he expects to be in Columbus next year to establish a milk laboratory.)

RECAPITULATE.

Recapitulation: Where good mothers milk cannot be furnished, or a wet nurse obtained and artificial feeding must be resorted to, the consensus of opinion is that cows milk properly prepared is the best substitute. That it is often necessary to modify cows milk by dilution to lessen the amount of casein; and, by doing so the sugar and fat are reduced below the normal standard and must be replaced. That cows milk being a good culture medium for microorganisms, especially during the warm months, it should be sterilized.

Since it is best that milk be modified to correspond as nearly as possible to mothers milk and that it be sterilized to destroy, or at least to prevent the early and rapid culture of microbes, it is best to encourage laboratories to be operated under the scrutiny of physicians and inspection of Boards of Health.

Statistics show the mortality among children fed on modified depot or laboratory milk is remarkably low when compared with the usual mortality of children artificially fed.

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The last regular meeting before the summer recess was

held on June 26.

Dr. C. A. Hamann presented three cases of goitre, one a youth of eighteen years, with a large vascular tumor; the others, two boys, brothers, with smaller tumors. All had been treated with thyroid tablets with some apparent improvement. In the case first mentioned, the size diminished for a time and then remained stationary.

DR. C. F. HOOVER exhibited a specimen of aneurism of the ascending aorta. Its existence was disclosed only at the necropsy, after sudden death; the diagnosis of em-

physema alone having been previously made.

Dr. A. F. House exhibited a large cysto-sarcoma, removed from the scapular region. Two lipomata had been removed previously at different periods from the same



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patient, and the tumor exhibited was supposed to have

originated in a lipoma.

DR. Joseph F. Hobson reported a case of obscure Pott's disease, whose history recorded a varied experience in diagnosis and treatment before the spinal difficulty was discovered. Treatment by supporting jackets and aspiration of the abscess which formed in the upper thigh three times in successive months resulted in cessation of suppuration and apparent cure, which condition had continued for several months at the time of the report. Dr. Hobson considered that the case was not permanently cured, but that there had been a cessation in the progress of the disease and that great care should be exercised by the patient to avoid undue exertion and to keep up the general condition.

DR. A. D. CAMPBELL and DR. W. E. WIRT presented a patient who well illustrated some of the conditions and

difficulties of diagnosis found in Dr. Hobson's case.

Dr. W. E. WIRT exhibited and explained the apparatus which he had devised for the application of dry heat at a high temperature to the limbs, for which he claimed excellent results in cases of chronic rheumatism, rheumatoid arthritis, gonorrheal rheumatism and synovitis. The apparatus consisted of a cylinder of sheet copper, 12 in. long by 9 in. diameter, with two ½ in. holes opposite one another at each end of the cylinder. Wood rings, of 1 in. cross-section were fitted into the ends of the cylinder and to each ring was tightly fastened a hood of heavy rubber cloth, which could be drawn snugly about a limb inserted into the cylinder. The cylinder, resting upon a suitable frame could be heated by a gas or other burner. With the air surrounding the joint heated to a temperature of from 250° to 300° F. or higher, as used by Dr. Wirt, the results were relief of pain, dilatation of blood vessels, excessive perspiration, reduction of swelling, presumably by resolution from increased lymphatic circulation and stoppage of creating in the joint. The cylinder should be placed with the small holes above and below to allow circulation of air and the escape of the moisture coming from the skin. Cotton batting should be used to protect the skin from steam formed from the perspiration falling on the lower part of the hot cylinder and also to prevent the thermometer bulb from touching the skin.

MEDICO-LEGAL.

The June supper of the Medico-Legal Section of the County Medical Society was given at the Forest City House on June 18, President Dr. B. W. Holliday in the chair.



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A report from the committee appointed to investigate the scientific basis of the claims of mind reading, asserted in connection with a popular entertainment then in progress in the city, was read. The committee had been cordially received so long as it was proposed to investigate from the standpoint of the audience, but the request for permission to occupy positions at closer quarters, behind the curtain. met with a flat denial, and the statement that no one ever had been or ever would be granted such a privilege; that they were in the business for the money there was in it, and did not propose to have wires cut or secrets discovered. The committee did not pursue the matter further.

The subject for the evening, "The Credibility of Autopsies in Obscure Cases of Rapid or Sudden Death," was introduced by Mr. HOWARD A. COUSE in a paper on the

legal phases of the question. (See p. 555.)

Dr. A. J. Brockett, taking up the subject of brain lesions as causes of sudden death, reported two extremely interesting cases, and also one case of severe brain injury in which death was unusually delayed. (See p. 558.)

A paper on the heart in cases of sudden death was

expected, but the writer could not be present.

DR. L. B. Tuckerman presented the subject of lung lesions in relation to the subject of discussion. He said that the condition of the lungs is closely related to that of the heart, and when no lesion of heart or coronary arteries is found, it cannot be determined which is at fault. Engorgement of the lungs found post mortem is not conclusive of lung disease, as the resiliency of the arteries may force the blood back into the lungs. In two-thirds of the cases the cause of death must be determined by the history of previous occurrences regardless of post mortem conditions.

In a case of diabetic coma and death, a certain person was accused of being responsible for the death. The coroner's examination showed absolutely no evidence of the cause. The case was readily cleared up when the history of previous diabetes was learned from the attending

physician.

Occasionally an overdose of pilocarpin will cause edema, filling the lungs as completely as by drowning. Hemorrhage of the brain or ossified coronary arteries may have existed for years; how can it be said that, when found,

they are necessarily the causes of death?

In the general discussion which followed, Mr. H. C. Bunts emphasized the importance of giving due consideration to extrinsic circumstances in conjunction with the condition found post mortem.

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Dr. J. G. Spenzer said the case of Dr. Brockett corroborated the results of experiments on localization of function by Prof. Goltz of Strassburg, who removes successive parts of the cerebrum at considerable intervals and has kept an animal 10 years after loss of three-fourths of both hemispheres. Such results follow only gradual removal. He has never successfully operated on both hem-

ispheres at one time.

DR. C. W. Smith cited a case of injury by a blast in a quarry, in which a considerable portion of the right hemisphere was destroyed, but recovery followed without evidence of brain injury or mental deficiency. In answer to a question, he said that nerve cells destroyed were not replaced, but that with physical and mental development there is a development of neurous, each neurou having its peculiar function. In this connection he brought up the question as to whether the neurous act by responding to the touch of some impalpable ego (the soul) as do the keys of a type writer to the finger touch, or whether action originates in the cells acting in co-operation: whether thought is the result of cell action, or its effective cause. With the materialistic view appears the difficulty in explaining the co-operation of cells.

Dr. Tuckerman said that Dr. Brockett's cases were instructive in studying the functions of the anterior lobes. Death may have been caused by the extension of the lesion to the point of origin of the pneumogastric. A very minute hemorrhage in this region might cause death, and could be found only by making serial sections after hardening. He thought that brain cells are not reproduced, but that vicarious action is developed in extra cells. He related a case of injury with utter destruction of the nerve supplying the left side of the face. The muscles were kept in condition by electricity, until in time a vicarious or secondary nerve connection was established. The original action was not fully reproduced, as the separate muscles and muscle groups would not respond separately as in the normal condition. New cells have to be educated and are never so good as the original. In this case there was reason to believe that branches of the fifth nerve had taken up the function of the destroyed seventh.

The President asked to have the following subjects studied with a view to their discussion at future meetings:

1. Dual function and dual existence; duality of the brain.

2. Present scientific status of hypnotism.

3. Anatomical evidences of death by starvation.



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AMERICAN PEDIATRIC SOCIETY.

Eighth Annual Meeting. Held at Montreal, Canada, May 25th, 26th, 27th, 1896. Joseph O'Dwyer, M. D., President.

The sessions were held in the Windsor Hotel, the meeting on the whole being one of the most successful in the history of the Society. Owing to the necessary absence of the President, Dr. James C. Wilson, the First Vice President, presided. The first session was opened by the reading of the President's address, entitled the Evolution of Intubation. This was prepared at the request of the Council and was a paper of the greatest interest as it described the labors which Dr. O'Dwyer pursued with untiring devotion to a great idea through five years. A bivalve tube was first used, but after three years of continuous effort it was abandoned and experiments were begun with the solid tube. The paper described the various experiments made with alternating failure and success, until at last obstacle after obstacle was overcome and imperfection after imperfection was removed. As a result of this patient toil, perfected instruments were given to the profession, a very rare thing in the history of medicine. The various steps taken in the attaining of this great result were narrated with the simplicity and modesty which has always characterized the literary work of Dr. O'Dwyer. A complete set of instruments showing the evolution of intubation from the first bivalve tube to the present perfected model proved of the utmost interest.

The first paper was read by Dr. George N. Acker, of Washington, on Gangrene of the Lung Following Typhoid Fever. Dr. J. H. Fruitnight, of New York, read a paper on Malignant Endocarditis and presented a specimen. As the bacteriological examination showed the condition to be due to the presence of streptococci, the author advocated the

use of streptococcus antitoxin serum in such cases.

At the second session, Dr. A. H. Wentworth, of Boston, read a most exhaustive paper on Lumbar Puncture and reported twenty-nine cases. He affirmed that while normal cerebro-spinal fluid contains neither fibrin nor cells, and is always clear, it is always cloudy in cases of meningitis, though the cloudiness is sometimes very slight. This is caused by cells, the character of the cells differing with the variety of meningitis. The operation, the author believes, offers a valuable means of differential diagnosis. For such purpose, however, the microscope is essential and inoculation experiments are also of value.



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This was followed by a paper on Tapping the Vertebral Canal, with remarks on local treatment for tubercular meningitis, by Dr. Augustus Caille, of New York. He reported twenty-one cases and believed that a study of the cases reported up to the present time will certainly convince the most skeptical that Quinke's puncture is of positive value as a method of diagnosis. It is simple and usually easy of performance. In two cases Dr. Caille injected antiseptics into the sub-arachnoid space but without material results. He proposes in some future case to lay bare the dura by removing a button of bone and irrigating from a lumbar puncture upward through an opening in the dura. Dr. C. G. Jennings, of Detroit, also read a valuable paper on Lumbar Puncture and reported practical experience. Dr. Floyd M. Crandall, of New York, read a paper on the Occurrence of Influenza in children and reported local epidemics. Dr. Samuel S. Adams, of Washington, reported an extremely interesting case of Temporary Insanity Foilowing Typhoid Fever. Dr. Frederick A. Packard, of Philadelphia, reported a case of Endothelioma of the Brain with Atrophy of the Paralyzed Members. Dr. Henry Jackson, of Boston, read a paper on Nasal Feeding in Diphtheria in which he advocated feeding by means of a soft tube passed through the nose into the œsophagus in certain cases of diphtheria. As this can be done with ease, it does much in preventing exhaustion of the child's strength. Dr. William Osler, of Baltimore, read a paper on the Classification of Tics or Habit Movements. made the following classification:

I. Simple tic or habit spasm. II. Tics with superadded psychical phenomena; maladie de la tic convulsif, or Gilles de la Tourette's disease. III. Complex co-ordinate tics. IV. Tic psychique. An imperative idea is the psychical equivalent of and has an origin similar to the motor tic. Each of these subdivisions was elaborated and

illustrated by practical examples.

The third session was devoted to the Antitoxin Treatment of Diphtheria. The report of the Collective Investigation Committee of the Society upon the results of the Antitoxin Treatment in Private Practice was read. Over five thousand cases were reported, the results being, on the whole, far more favorable than any extended reports than have thus far appeared. An interesting report will soon be published in full. Dr. A. F. Packard reported favorable results of the antitoxin treatment, and Dr. S. S. Adams read a paper on the comparative results of the treatment of diphtheria with and without antitoxin in the District of Colum-



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bia. It appears that the death rate from Diphtheria in the District of Columbia since the introduction of antitoxin has materially diminished. Dr. A. Seibert, of New York. read a paper on sudden death after antitoxin injections. He reported a series of striking experiments which showed that the injection into animals of carbolic acid even in very weak solution was constantly followed by most characteristic spasmodic movements. Another series of experiments was made to determine the effects of subcutaneous injections of air. The results seem to show that antitoxin can contain but infinitesimal quantities of carbolic acid. They also rendered the proposition reasonable that the few sudden deaths reported after the use of antitoxin might be due to the injection at the same time of air. The general discussion elicited by these papers was extremely interesting and showed a unanimous and very strong sentiment in favor of antitoxin.

At the fourth session Dr. Rowland G. Freeman, of New York, read a paper on Low Temperature Pasteurization of Milk at about 67° C. He proved that this temperature was sufficient to kill numerous pathogenic bacteria and various atmospheric bacteria, and referred to the importance of avoiding unnecessary heat in the preparation of milk for infants' use. He presented a new apparatus of simple construction, designed to Pasteurize milk at 67° C. Dr. Charles W. Townsend, of Boston, reported several cases of Thigh-Friction in Infants. Dr. William P. Northrup, of New York, reported a most interesting case of Apparently Relapsing Cerebro-Spinal Meningitis followed by death and autopsy, which elicited a warm discussion on the pathology and diagnosis of meningitis. Dr. Henry Lafleur, of Montreal, reported a case of Insolation in an Infant of thirteen months. Dr. A. D. Blackader, of Montreal, reported a case of Enlargement of the Liver in a voung child with symptoms closely resembling those of typhoid fever. Papers were read by title by Drs. B. K. Ratchford, of Cincinnati, F. Forchheimer, of Cincinnati, Irving M. Snow, of Buffalo, and Henry D. Chapin, of New York.

The last session was devoted to the presentation of pathological specimens; specimens being presented by Drs. Rotch, Holt, Caille, Adams, Packard, Acker, Freeman, and Townsend.

In the executive meeting the following officers were elected for the coming year:

President, Dr. Samuel S. Adams, Washington, D. C. First Vice President, Dr. W. S. Christopher, of Chicago, Ill.



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Second Vice President, Dr. Charles P. Putnam, Boston. Secretary, Dr. Frederick A. Packard, Philadelphia. Treasurer, Dr. Charles W. Townsend, Boston. Recorder and Editor, Dr. Floyd M. Crandall, New York. Member of Council, Dr. William Osler, Baltimore. Chairman of Council, Dr. William P. Northrup, New York.



LETTER FROM VIENNA.

VIENNA, AUSTRIA, June, 1896.

To the Editor of The Cleveland Medical Gazette:

Of the many interesting and instructive features connected with the hospitals and clinics of Vienna, the following are undoubtedly the most striking to the American student: the unlimited supply of clinical material; the able, careful and painstaking examination before a diagnosis is made; the excellent opportunities offered for following the course of diseases, and should they end fatally, hearing the verification or refutation of the diagnosis. The financial control of the hospitals, connected with the university, is essentially in the hands of the municipal government, which also allows the members of the hospital staff, full scope to pursue scientific investigation. The latter, therefore, experience none of the pecuniary hindrances which are only too often associated with medical research in the hospitals of our country. The paid and minor assistants comprise a large number, each ward of about 25 beds having, on an average, about seven who are constantly engaged in the chemical, bacteriological and microscopical examination of blood, excretions and secretions. No instrument or appliance, be it ever so costly, is wanting that might lend aid or ease in the establishment of a positive diagnosis. The discovery of the cathode rays may be taken as an illustration. As soon as Roentgen had made known the results of his experiments, each surgical department, as well as most of the medical departments, were in possession of the instrument described by him, and were using it as a means of diagnosticating cholelithiasis, the position of foreign bodies, fractures, etc. The close connection existing



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between the hospital ward and the laboratories for physiology, bacteriology, gross and microscopical pathology, gives to the post-graduate course of Vienna, an advantage which cannot be obtained in many other cities. The departments just mentioned are part of the hospital, and the material used in them is furnished exclusively by the hospital wards and by the rich supply of the autopsy room. Of the popularity of the latter department amongst Americans, no better proof would be necessary than to go there any morning between 8 and 10:30 and see the number to which they congregate. The able and thorough manner in which Prof. Kolisko and his staff of assistants carry out the postmortem examinations, makes the time spent here of special value, not only to those engaged in the study of any one branch of medicine, but to the general practitioner as well. The opportunities offered by this department can be best appreciated when we know that the number of autopsies here average from two thousand to twenty-five hundred a year, exclusive of those dying of pulmonary tuberculosis. Tuberculosis has become so common a cause of death in Vienna that it no longer is a source of interest to the postmortem examiner, unless it is of an unusual variety, or unless in its pathological progress, it has produced obscure or unusual changes. The fact that those cases dying of phthisis are excluded from the autopsy room, does not by any means prevent the student from seeing many cases of this disease, since a very respectable number of those examined, whose death was the result of various other affections, have in addition pulmonary tuberculosis. Prof. Kolisko has stated that 90 % of all the people who have been born in Vienna and who have lived there during the whole of their lifetime, have been afflicted at some time or other with some form of tubercular disease.

Although pulmonary tuberculosis is very common and is a frequent cause of death, the many post mortem examinations which have been made here, have proven conclusively the statement that it can often exist, followed

subsequently by a complete process of healing.

This phenomenon is frequent here, but very likely only from the fact that the statistics are taken from a large collection of cases. It has been said that the profession in no other city can hope to compete with the Vienna diagnosticians unless that city conforms with the laws prevalent here, making it compulsory that the death of every hospital patient, shall be followed by his or her post mortem examination, regardless of the patient's wealth or social position. Upon the truth or falsity of this statement, I would rather



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withhold my opinion, but as far as the compilations of statistics are concerned, it is only reasonable to believe that none are so valuable as those which are, in every instance, substantiated by a thorough examination post mortem. It is certain that the strides of progress in medical research here. are dependent largely upon the co-operation of the legal authorities with the medical fraternity. A visit to the new addition of the St. Anna Children's Hospital, presided over by Dr. Emil Franz, first assistant to Prof. Wiederhofer, will repay anyone tenfold. The new addition has been built recently and contains scarlatina and diphtheria wards only. It is entirely separate from the older buildings and is all that one would suppose a model hospital of this character should be. Throughout the building the floors are of mosaic and the walls of cement, which not only facilitates the work in keeping them in a good sanitary condition, but reduces to a minimum the possibility that the apartments themselves might carry infection. For the latter reason the hospital furniture is not superfluous, and is universally constructed of iron, while the light blue color it is painted, lends to the wards a neat, clean and cheerful appearance.

The wards are not large, some containing six, others ten beds. They are well lighted and ventilated and contain a system of steam pipes, so arranged as to have on either side of each bed an ingenious apparatus which can be so regulated, as to make the air which the patient breathes, strongly or slightly impregnated with moisture. To protect the attending physician from the possibility of infection, in making examinations of the patient's throat, a very serviceable device is used. It consists of a circular disk of glass, about 12 inches in diameter, convex on one side and concave on the other, with a handle attachment. In the center of the concave side is an incandescent lamp behind which is a reflector and through the handle of the lamp an insulated coil supplies the electric current. The coil being about 20 ft. long and attached to a binding post, situated about 5 ft. from the floor in the center of one of the walls, enables the physician to go from bed to bed, carrying the instrument with him. In examining a patient, he holds it before the latter's face, the incandescent lamp furnishing him ample light, while the glass disk offers no obstruction to his view, but catches any infectious material that might otherwise be coughed into his face. The tongue depressors are of wood and are used only once, after which they are burned. That no mistake in the diagnosis shall be possible, a microscopical examination and bacteriological culture is made, in every instance, of shreds of membrane, or where



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the latter is beyond reach, of mucus taken from the tonsils and fauces. These observations are carried on during the patient's stay in the hospital and he is not discharged until the microscope fails to reveal the presence of diphtheria bacilli in the mucus taken from his fauces. Since the introduction of diphtheria antitoxin all cases of diphtheria are treated with this remedy, and I was very much interested to learn the degree of success with which it was being used. Upon being shown the hospital report for the last thousand cases, I found that the rate of mortality among those patients which had been in the hospital longer than ten hours, was as low as 10%, while the death rate among the whole number of diphtheria patients admitted, was 17 %. Everyone must admit that this report is a most favorable one, taken as it is, from a hospital whose patients have been living in the worst hygienic surroundings imaginable in the slums of a great city like Vienna. Although intubations and tracheotomies are done much less frequently than for-

merly, they have by no means been discarded.

When a patient becomes dyspnoic, the rule, in the hospital I have mentioned, is to do an intubation first, and if it afford sufficient relief, to allow the tube to remain, in all not longer than eighty hours, taking it out from time to time to determine whether or not it can be dispensed with; also to guard against the danger of decubitus and a following organic stenosis. After wearing the tube for eighty hours, and the amount of inspired air still being insufficient to sustain life, it is discarded and the patient is subjected to a tracheotomy. Excluding diphtheria and the eruptive fevers, more cases of tubercular meningitis are seen in this hospital, than of any other one disease. The latter statement coincides with the remarks of Prof. Kolisko, upon the frequency of tubercular disease in Vienna. The departments which I have mentioned, are but a few of the many which offer unexcelled opportunities to the American physician, who comes here for the purpose of post-graduate work and although much of the sentiment of the medical fraternity of our country is against the custom of going abroad for the purpose of individual advancement, we must not lose sight of what has been told to us by those who have had the benefit of foreign study and who have described the manifold advantages, offered by European clinics, and especially those of Vienna.

MORRIS D. STEPP, M. D.



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CHANGES FOR ADVERTISEMENTS, or addresses, must reach us not later than the fifteenth day of the month, preceding issue to be corrected in the current number.



THE MEDICAL SOCIETY OF THE STATE OF NEW YORK AND THE AMERICAN MEDICAL ASSOCIATION.

The remarks of Dr. Roswell Park in his inaugural address as president of the Medical Society of the State of New York will certainly be heard with pleasure by all who love peace and harmony better than bickering and discord, and all who have at heart the interests of an united profession. It is pleasing, too, to note that the sentiments



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expressed were not those of the president alone, for the committee to whom the address was referred, reported as follows:

"That this society approves of the sentiments expressed in the president's address concerning the relations of the Medical Society of the State of New York and the American Medical Association, and is ready to co-operate in any plan compatible with the dignity of both organizations whereby existing differences could be adjusted in the interests of professional harmony, and in accordance with the liberal spirit of the age."

We trust the last clause of this report was not intended as a "string," and that those of the "liberal spirit" will be liberal enough to even halt a little in what seems, to them, the march of progress, in order that the great body of the profession may come up and travel together with them; and on the other hand, we hope that those who cling with reverential devotion to time-honored institutions will recognize that we cannot live altogether in the ideal—that there are practical questions, grown out of the exigencies of our times, which demand a practical answer, and that the answer may differ in its details from what it would have been a hundred years ago. But when the answer comes from the great body of the profession, let it be accepted by all as a better and a safer guide than if it were answered by any one man, or clique of men in that profession. Let us have one united and harmonious representative national body of the profession, in which each individual member bows to the consensus of opinion in all matters affecting the general good of the profession. In considering the points of difference which separated the State from the National organization, it ought not to be very difficult to find the golden mean that brings the greatest good to the greatest number, provided only it be sought with singleness of purpose, and all self-interest and all mere bumptiousness kept in the background. Perhaps it is not too much to hope that this year, in which the Association has a president recognized for his professional attainments—one whose attitude toward scientific work and deprecation of "politics" have been so definitely indicated in his speech of acceptance, will witness an awakening of the true professional spirit, a harmony in action and an

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onward and upward impulse in society work that have long been needed. The remarks of Dr. Park, which have led to this comment, were as follows:

"It is now more than fourteen years since an event in the history of this society, which has had a most marked influence, not only upon its affairs, but upon professional matters throughout the land. I allude to the differences of opinion which brought about a separation of this organization from the American Medical Association. Whatever the causes which operated at that time to cause this deplorable state of affairs, it is certain that they have since been made less operative. I am sure that a majority of members of the national body long to see this society restored to its early affiliation, and I am sure that a majority of our own members would gladly welcome the day when harmony might be restored, and when the National Association would again receive our delegates with their old-time cordiality. That day, it seems to me, draws ever nearer, and were it not for the ill-advised and much-deprecated animosity of a few opponents of peace and good will, would be plainly in I would urge upon our members the importance of hastening by all judicious means the restoration of former relations and the election once more of delegates to that Association just as soon as we are assured that they will be received in the same spirit in which they are sent. Only the prejudices of a comparatively small number of men stand in the way of this most desirable accomplishment. I urge no lowering of our dignity; only that the actions of fifteen years ago, by men who did not then understand our position, and who are, perhaps, not yet moved by the liberal spirit of the age, be forgotten, and that brothers of the noblest of all professions again clasp hands across a breach which was not of their own making."

DEATH OF GERMAIN SEE.

Dr. Germain See, Professor of Medicine of the Faculty of Medicine, died May 12, '96, at his residence, Avenue Montaigne, Paris, after a two years' illness.

Like many of France's greatest scientific and public men of to-day and for generations past, Prof. See was born in Alsace, now a German possession.

For many years prior to his demise he with Charcot, Brown-Sequard, Dujardin-Beaumetz and Potain were looked

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upon as France's foremost medical men; of these but Potain now remains.

Dr. See was one of the principal attractions at the magnificently arranged Hotel Dieu; his well equipped pharmacologic laboratory being fully as interesting as his excellently presented and instructive clinics.

Prof. See was a profound and enlightened practitioner, and many medicines now universally used, such as potassic iodid, antipyrin, etc., were introduced and strongly advocated by him.

His teachings on the diseases of the circulatory system and digestive tract, and his more recent studies on the absorption of iron were among his more important investigations.

Dr. See was a typical doctor of the old school, careless of dress and brusque in manner, a marked contrast to the polished Parisian practitioner of to-day.

JOHN G. SPENZER.



TEARS OF THE RECTUM IN ABDOMINAL OPERATIONS FOR PYOSALPINX AND THEIR TREATMENT.

Abstracted by Hunter Robb, M. D.

Under this title, Prof. M. Sänger presented an interesting communication at the April meeting of the Obstetrical Society held in Leipzig, of which the following is an abstract.

Among the objections which have been urged against vaginal hysterectomy in cases of adherent adnexa is the relatively frequent occurrence of penetrating wounds of the large intestine. This complication, though more likely to be met with in vaginal operations, is by no means unknown in coliotomies. In all such cases we have to deal with dense adhesions of the adnexa to the surrounding parts. Should such an accident, however, occur during a coliotomy, it is possible to treat it at once, whereas in the vaginal operation it is necessary to proceed first to an abdominal



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section. Again, in colliotomy, the parts being better under observation, it is much easier to avoid such ruptures.

In difficult operations in which colliotomy is employed, the injury when it takes place is generally to the descending colon or to the sigmoid flexure and much more rarely to the rectum. It is therefore easily explicable that more care must be employed in separating adhesions on the left than on the right side where, as a rule, we have only to deal with the appendix, and very rarely with the cocum or the sigmoid flexure. In spite of the recent advances in intestinal surgery, the accident with which we are speaking is still very unsatisfactory to deal with since there are usually complications present which are not met with in the ordinary intestinal operations.

The following case is of interest. The patient was a married woman with a history of gonorrhœa. The adnexa on both sides were involved. The uterus was retroverted and fixed. The general condition pointed to a fresh gonorrhœal infection upon an old chronic pelvic peritonitis with

double perisalpingitis and pyosalpinx.

The operation was performed on Jan. 21, 1895, with the patient in the Trendelenburg position. Many very firm adhesions were encountered. The hemorrhage being hard to check, a careful examination was made, and deep down in Douglas' sac, about the level of the third sacral vertebra, a transverse tear of the rectum measuring five or six cm. in length was found. No fecal odor had up to this time been apparent. A few masses of feces were found in the peritoneal cavity. The wound was immediately sutured, the procedure being much facilitated by the Trendelenburg position, since the rectum could not be brought forward. Mikulicz tampon drain was employed and the wound was closed. Both during and after the operation on account of the symptoms of serious collapse, infusions of salt solution were employed. The highest temperature registered occurred on the second day and was 102.1° F. The inner pieces of the Mikulicz drain, when it was removed on the tenth day, had no fecal odor, but this was clearly perceptible on the outer bag. On one occasion, of the eleventh day, fecal matter came from the abdominal wound. On the thirtieth day, the abdomino-rectal fistula was still open and discharged occasionally a little fecal matter. Regular stools were passed by the anus. On April 18, 1895, a small fistula still remained which discharged a little pus, but no flatus or feces.

Both tubes on removal were found to contain sterile pus. There was a piece of the rectal wall as large as the thumb nail adherent to the left tube.



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This favorable result seems to have been due to the Mikulicz drain. In this case probably a portion of the thinned rectal wall became necrotic but during the process the injured portion was walled off from the peritoneal cavity and thus all immediate danger was avoided. That such a tear can occur without any grave effects being perceptible is proved by Boeckel's case in which colotomy was performed on account of a myoma incarcerated in the pelvis and firmly adherent to the rectum. The patient died one month later and the autopsy showed the existence of an old tear in the descending colon near which in the peritoneal cavity was a large mass of dry feces completely encapsulated.

Several procedures were open to me in dealing with my case. It might have been possible to dissect the upper portion of the rectum loose and bring it out of the abdominal wound thus forming an artificial anus. In view of the fact that the rectum was densely adherent this would have been difficult, and although such a procedure would have promised healing by first intention it would have not done

away with the necessity for the use of the tampon.

Kelly's operation of Sigmoido-proctostomy, of which I had had no personal experience at the time, might have been very suitable for this case. Kelly cuts the sigmoid flexure through transversely and whips the edges with button sutures leaving the ends long. These are then caught in a long hemostatic forceps inserted into the rectum through the anus. By this means the cut gut is drawn down into the rectum which is narrowed to a slit, so that the edges are in apposition with the invaginated flexure. Kelly in his case in which he had resected 3 cm. of the rectum, did not stitch the edges of the slit to the invaginated flexure, but nevertheless obtained perfect results.

In all these cases of injury to the bowel it is of the greatest importance to shut the fistula off from the rest of the abdominal cavity. The torn gut might therefore have

been allowed to empty into the vagina.

In these cases we can often make use of the uterus and the appendages which are covered with folds of peritoneum out of which can be provided an apron which will keep the small intestines away from the seat of the trouble and wall off the rupture from the peritoneal cavity. This arrangement, however, interferes with the normal position of these organs so that other methods have been found preferable. Frank describes a method of pushing the rectum to the right and securing the appendices epiploicæ to the anterior abdominal wall. In this way he makes a diaphragm

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between the general and the pelvic peritoneal cavities, so that the sound cavity is shut off while the other portion is permitted to remain open. Chapul cut a large peritoneal flap from the anterior wall of the uterus before supravaginal amputation and with it made a horizontal walling off of the pelvic cavity. If any of these methods of "partition formations" is carried out in the case of an intraperitoneal tear in the rectum the rectal tear should be made to open into the vagina through an opening in Douglas' pouch.

In such a communication with the vagina there always exists a possibility of infection of the connective tissue of the pelvis. The fistula in the rectum demands a great deal

of technical skill to deal with successfully.

It appears under all circumstances much preferable not to allow the rectum to communicate with the vagina, but to endeavor to repair the tear from the abdominal cavity. One or other of the three methods following seem to promise the best results:

1. Direct suture, with the after employment of the

Milkulicz drain.

2. Direct suture and "partition formation," with drainage of the space which has been walled off. This method is most applicable in those cases in which the diaphragm formation is easy and we are not hurried and the diaphragm can be made without loopholes.

3. Kelly's method. Where the circumstances admit,

this is the ideal method.

ROENTGEN RAYS IN LARYNGEAL SURGERY.

George W. Crile, M. D.

J. Macintyre in Journal of Laryngology reports the results of his investigation. His photographs show distinctly the base of the tongue, the epiglottis, the laryngeal cartilages, the esophageal opening and the vertebræ. The bones of the face in one case showed disease. On the dead subject distinct photographs of foreign bodies in the larynx and in its neighborhood were clearly shown, but with the aid of sodiun or barium platino cyanide plates, the foreign bodies were seen direct. In the case of a boy who six months previously swallowed a half-penny, by means of the fluoroscope, he was able to locate it on a level with the third dorsal vertebra, which had caused pain in the region of the heart. Now, the author believes that the X Rays will have a wider application on this subject than one could believe.



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H. Morestin (Bull. de la Soc. de Anat., Paris, T. X, p. 99), obtained a specimen showing ancient dislocation of the atlas upon the axis. The first four vertebræ show bony anchylosis, the atlas is dislocated upon the right and forward upon the second vertebra; the odontoid process showed traces of an old oblique fracture. The laminæ all showed fracture, the canal in the axis is narrowed, the cervical vertebræ are concaved toward the right. The specimen was obtained from an unknown subject, so that no information as to its clinical history is given.

THE TREATMENT OF LUPUS BY SALICYLIC-CREOSOTE PLASTER.

W. Debreuille and Bernard (Monatshefte für praktische Dermatologie Bd. XXII., Hft. 3), report that while it is recognized that excision of lupus is the best treatment, there still remains cases in which this method may not or cannot be employed in such cases, they recommend salicylic-creosote plasters. The plaster is placed over the entire diseased area, and upon which cotton is then snugly bound. This latter dressing is daily removed. The diseased tissue is thereby destroyed and the sound skin remains relatively uninjured, the base of the ulcer will become covered under the plaster with granulations. In lupus sclerosis, the diseased tissue will also be destroyed, but here the results are not so satisfactory.

This method is especially recommended in superficial lupus and in cases of incomplete repair after operation.

Hahmann (in Deutsche Med. Wochenschrift, 1895), reported a patient, 42 years of age, unmarried, laborer. An abscess developed at the left elbow at the point where previously he had received a contusion. Microscopic examination of the pus revealed numerous gonococci which were also found in the urethra in the watery secretion found mornings before urinating.



BY L. B. TUCKERMAN, M. D.

Ever since the general adoption of the practice of vaccination has reduced small-pox from being one of the most dreaded of scourges to the rank of a somewhat more sporadic, there have not been lacking those who have decried the practice of vaccination as a useless one and who have scouted the conclusions of the medical profession. These anti-vaccination cranks attained such influence in the town of Gloucester, England, as to dominate the local legislature and abolish compulsory vaccination. The result was that until recently that town probably contained by far the largest percentage of unvaccinated persons of any town in the civilized world and they have been gratuitously furnishing to the world at large a "control" experiment on a scale unprecedented in recent times. Small-pox broke out among them in the latter part of winter and by March 28, there were 700 cases,1 the number increasing at the rate of 50 per week. 25 per cent. of the cases were fatal. Anti-vaccination sentiment, it is needless to say, is at a low ebb in Gloucester. The inhabitants have been applying for vaccination by the thousand. Costly as the lesson has been to the citizens of that unfortunate municipality, it can hardly fail to profit the world at large for it furnishes an effective answer to the arguments of those who oppose thorough and compulsory vaccination and revaccination often enough to keep the community practically immune. Dr. R. Abrahams of New York City has been for some time treating acne rosacea by local subcutaneous injections of 95 % alcohol, 20 to 30 drops being thrown with a fine needle into the diseased tissue two or three times a week. The immediate effect of the injection is a swelling and anemia of the area about it, followed in a few moments by an increased redness which lasts from half an hour to three or four hours, the skin gradually resuming its usual color. The dilated blood vessels and papules will be found after repeated injections to undergo slow but sure obliteration until finally the whole lesion disappears, the skin becoming normal. In the first form of rosacea wherein hyperemia of the skin was the main lesion, the treatment required from eight to ten weeks. In the second form, where papules and pustules were present, greater perseverance was required, but these also yielded in time. As the treatment leaves no scar, it is insofar preferable to electrolysis or scarification. The fact that glycer-

^{1.} Medical and Surg. Reporter, May 9, 1896.

^{2.} American Med. Surg. Bulietin, May 16, 1896.



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ine has the double property of dissolving uric acid and of passing unaltered through the kidneys as well, has led DR. HEYMANN of Barcelona, Spain, to employ it in the treatment of renal lithiasis. He records fourteen cases, in ten of which favorable results followed. Increased thirst and augmented volume of urine followed rapidly the exhibition of the glycerine which made its appearance in the urine in appreciable quantities in from three to four hours. In those suffering from renal calculi, pain in the region of the kidney supervened, limited to the affected side. The pains were less severe than those of ordinary renal colic. In from nine to twenty-four hours small calculi would be expelled. Though much increased in quantity and containing considerable mucus, it remained free from albumen, sugar or hemoglobin. How much glycerine was given in these cases, the abstract cited fails to state, but notwithstanding that omission, it would seem a remedy well worth full and fair trial, for if we can only render an occasional nephrectomy unnecessary it is well worth our while. When called to a case of infantile convulsions, it is the duty of the physician, according to DR. WM. A. DICKEY, of Tiffin, Ohio, to first use a thermometer, no matter how urgent the symptoms, and if the temperature be 103 F. or over, the warm bath is never indicated, but, on the contrary, the cool bath or the cold pack are to be used until the temperature has fallen to somewhere near normal, when in most cases the convulsions will have ceased. The customary hot bath he regards as irrational except in those exceptional instances where the extremities are cold, and calculated in most cases to aggravate rather than to diminish the danger. Paraldehyde is being used a good deal by Dr. Hearder in the treatment of the paroxysms of asthma, whether occurring as the ordinary spasmodic asthma or in connection with other diseases.⁵ In the majority of cases the relief is claimed to be rapid and complete, and in the remainder the distress is lessened. A single dose of from 45 to 60 minims usually served the purpose, but in a few cases a second dose of 30 to 40 minims was indicated in an hour or so later. Especially happy results were noted in nocturnal asthma, the hypnotic effect of the drug making it peculiarly efficacious in such cases. The addition of a few drops of alcohol renders paraldehyde perfectly miscible with water so that it can be prescribed in water with the addition of any flavoring tincture "q. s. ut flat solutio." In that condition of the stomach where both motility and acidity are below par, and which, for the lack of a better term, he calls

^{3.} Rev. De Ciencias Med. De Barcelona .- Quoted in Medical Times.

^{4.} Columbus Med. Journal, December 24, 1895.

^{5.} British Medical Journal, March 21, 1896.



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atonic dyspepsia, Dr. A. L. Benedict, of Buffalo, N. Y., finds pilocarpine (gr. 1-15 given before or some hours after eating) an efficient remedy for the tardy digestion and fermentation of food remnants which constitute so marked a symptom in this class of cases. He attributes the good result not only to the well-known power of pilocarpine to stimulate glandular action, but to another quality as well, less appreciated but of equal importance in this connection, viz: that of stimulating unstriped muscular fibre to increased motility.

6. American Therapist, April, 1896.



DIETS FOR INFANTS AND CHILDREN IN HEALTH AND IN DISEASE. By Louis Starr, M. D., Editor of "An American Text-Book of the Diseases of Children." 230 blanks (pocket-book size), perforated and neatly bound in flexible morocco. Price, \$1.25 net. Philadelphia, W. B. Saunders, 1896.

The proper diets for infants and children in health and disease, although a most important matter for the physician's consideration, is one which has heretofore failed to receive the attention it deserved. These carefully prepared lists (which are detachible) will, no doubt, prove of value to all engaged in the management of juvenile life with its attendant disorders.

MANUAL OF OBSTETRICS, by W. A. Newman Dorland, M. D., Demonstrator of Obstetrics, University of Pennsylvania; Chief of Gynecological Dispensary, Pennsylvania Hospital; Member of Philadelphia Obstetrical Society, etc. Profusely illustrated. Philadelphia, W. B. Saunders, 1896.

This is truly a practical book in which obstetrical knowledge is handled in a full, clear and concise manner. It deserves to become popular with students and busy physicians, as it has been written in accordance with the latest and best teachings of the present time. The book has been prepared upon a clinical, physiologic and pathologic basis, which has certainly decided advantages over the plan pursued in many works on the subject published in the past. The author is to be congratulated for his success in producing a treatise which is so certain "to facilitate the aims of



Notes and Comments.

the student of medicine or the busy obstetrician." Illustrations are numerous and of the highest order of merit. Another point worthy of note is the large number of diagnostic tables scattered throughout the book; by their aid the various diagnoses may be made with unusual facility, and a comprehension of the stages of the mechanism of labor becomes a matter of ease.

- CURETTAGE OF THE UTERUS: HISTORY, INDICATIONS, AND TECHNIQUE. By J. W. Ballantyne, M. D., F. R. C. P. E., F. R. C. S. E., Lecturer on Midwifery and Diseases of Women, Medical College for Women, Edinburg, etc.
- CONGENITAL TEETH, WITH THREE ILLUSTRATIVE CASES. By J. W. Ballantyne, M. D., F. R. C. P. E., F. R. C. S. E. Read before the Edinburgh Obstetrical Society.
- VALEDICTORY ADDRESS TO THE GRADUATING CLASS OF THE MEDICO-CHIRURGICAL COLLEGE OF PHILADELPHIA.

INTRA-OCULAR GROWTHS.

- RETINITIS AND CHOROIDITIS. By L. Webster Fox, M. D., Professor of Ophthalmology in the Medico-Chirurgical College.
- FIRST ANNUAL REPORT OF LANE HOSPITAL, including Dispensary Clinics of Cooper Medical College as an out patient department. San Francisco, 1895.
- The Fallacy of Antitoxin Treatment as a Cure for Diphtheria.

 Read in the section on Diseases of Children, at the Forty-seventh.

 Annual Meeting of the American Medical Association at Atlanta, Ga., May 5, 8, 1896. By Elmer Lee, A. M., M. D., Ph. B., Vice-President American Academy of Medicine, etc., Chicago.
- Bone Marrow in the Treatment of Various Forms of Anemia. By John A. Robison, A. M., M. D., Chicago, Ill.
- HOT WATER IN THE TREATMENT OF AURAL AND PHARYNGEAL INFLAMMATION. By C. W. Smith, M. D., Cleveland, O.

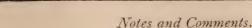


Dr. Judson Daland has been appointed Professor of Diseases of the Chest in the Philadelphia Polyclinic.

- Dr. H. D. Hinckley has been elected Chief Surgeon of St. Mary's Hospital, Cincinnati.
- Dr. Geo. H. Rohe has resigned as superintendent of the Maryland Hospital for the Insane, and will take a similar position in the Hospital for the Insane at Springfield, Md.

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Dr. George M. Sternberg, Surgeon General U. S. A., has been making an extensive tour of inspection among the military posts of the North-west.

y Smhas become Emeritus Professor of Pediatrics at Belleview Hospital Medical College. William P. Northrup has been appointed to the professorship.

The death of Dr. Constantin Paul, professor in the Faculty of Medicine, Paris, a specialist in heart troubles and editor of Trousseau & Pideaux's Therapeutics, has just been announced.

Dr. C. J. Aldrich has returned from a visit of several months at the National Hospital for Insane and Epileptics, Queen Square, London. Our readers will hear from him anon on neurological topics.

Dr. William Thos. Corlett will read a paper on "Dermatitis Hiemalis" at the International Dermatological Congress which meets in London, Aug. 4. From there he will take a short trip to Paris and Aix-la-Chapelle and through Holland.

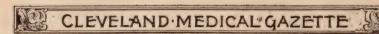
The Western Medical Review has now proceeded as far as No. 2, Vol. I., having started last month. It is a monthly journal of medicine and surgery, and hails from Lincoln, Nebraska. It rings true, and has the clean cut look of good coin. We hope it will circulate extensively and do a great deal of good for the profession in the West. It is edited by Dr. Geo. H. Simmons.

Prof. Edwin Klebs has been elected to the chair of

Pathology in Rush Medical College.

This college has recently been recognized by the Examining Board of the Royal College of Physicians and the Royal College of Surgeons of London, England. This recognition entitles its alumni to all the privileges accorded to the graduates of other institutions recognized by that board.

The American Microscopical Society will hold its next meeting at Pittsburg, Pa., on the 18, 19 and 20 of August, in the beautiful new Carnegie Library Building. The Iron City Microscopical Club is putting forth every effort to make the meeting of '96 the greatest in the history of the society and solicits the support and encouragement of every member. The president is Dr. A. Clifford Mercer of Syracuse, New York: treasurer, Magnus Pflaum, Pittsburg, Pa.; secretary, Dr. Wm. C. Krauss, Buffalo, N. Y.



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Vinegar as an Antitode to Carbolic Acid.—The May number of the Canadian Practitioner (N. Y. Med. Jour.) contains an abstract of an article from the Semaine Medicale in which the writer states that, according to Professor Carleton, vinegar is an antidote to carbolic acid. When it is applied to the skin or to a mucous membrane which has been burned by the acid, it causes rapid disappearance of the characteristic whiteness, as well as of the anesthesia produced by carbolic acid, and it also prevents the formation of a slough. Moreover, it neutralizes any of the acid that may have been introduced into the stomach. The first thing, therefore, to do, he says, in cases where carbolic acid has been swallowed is to make the patient drink some vinegar mixed with equal parts of water, and then wash out the stomach.

Alcohol as an Antidote to Carbolic Acid.—Dr. Donald B. Fraser of Stratford, Ont., in the "Medical Record" (Can. Med. Rec.) reports a case where a woman, attempting suicide, after experimenting with mixtures of carbolic acid and beer, it took a large quantity of equal parts of alcohol and carbolic acid, it did not have a corrosive action on the mucous membranes, a condition of unconsciousness existed for eight hours, vomiting for twenty-four hours, and then rapid convalescence. Locally, also, alcohol counter-acts the corrosive action of carbolic acid; if the alcohol is applied continuously, until heat causes to be developed in the pad soaked with alcohol applied to the burn, the pain and staining disappear.

The Laryngoscope is the name of a new "monthly journal devoted to diseases of the Nose, Throat and Ear, for general practitioners and specialists." It is edited by Drs. Frank M. Rumbold and M. A. Goldstein, with a goodly list of associate and foreign editors. We hasten to inform the reader before he guesses for himself that the new journal comes from St. Louis. The contents of the initial number are of a high order, and if it continues as it has begun, the publication should meet with support and success. It aims to interest not only specialists but general practitioners who are doing special work in nose, ear and throat.

This is rather a new departure, as the general practitioner doing special work or the specialist holding on to general practice has usually been decried in this country -by the specialists. Perhaps he is now going to be recognized as a healthy natural growth and a respectable and

reliable "practician" after all.

ABSTRACTS.

THE ABSORPTION OF IRON PREPARATIONS.

It is a now generally accepted fact that inorganic iron preparations are practically worthless in blood therapeutics, while organic compounds exert varying effects in the ratio to their absorbability. The albuminate preparations have a certain degree of value because they supply—in loose combination—the components from which the system can compound the required form of iron—just as it is abstracted from all food. This natural form of iron, as it is found in the tissues, and particularly in the liver—where it "comprises the reserve store for blood formation"—is ferratin, as substantiated by the studies of Schmiedeberg, Marfori and Filippi, and confirmed by other equally high authorities, including Prof. Chittenden of Yale.

These investigators have proved that ferratin is present in all human organisms, that it is absorbed from animal and vegetable food, and is stored principally in the liver—"to feed the blood." When, therefore, the physician treats his anemic patient with carefully selected diet, exercise, hygienic measures, etc., he unconsciously enlists the aid of the digestive and other organs to manufacture the required ferratin from the food ingested; this is a laborious task, because the organs are weak,—and it is empirical practice, because there is too much uncertainty in trusting to the debilitated system to work its own recovery,

even if useless inorganic iron preparations are added.

Schmiedeberg and Marfori having proved the identity and function of ferratin by conclusive physiological tests, which facts are now incorporated in text-books and medical literature, proceeded to duplicate natural ferratin by a synthetic process, in order to make the product available for therapeutic use; they succeeded in combining tartrate of iron with albumen by a complicated chemical process, yielding an iron albuminic acid—of ferratin. This product is chemically and physically identical with the natural ferratin as it can be precipitated from pigs' liver (containing the highest percentage of ferratin among animal food) or spinach (highest percentage among vegetables), and further physiological and clinical tests have proved that this product is quickly absorbed and assimilated, supplying the requisite amount of iron to the blood without taxing the system, and increasing the appetite and quickly stimulating the vital power.

There is nothing vague about the claims for ferratin. It is a logical scientific agent, designed on careful consecutive investigations by the highest international authorities; and it has clinically redeemed every promise made for it, by increasing blood-corpuscles and hamoglobin, improving appetite and general well-being, and markedly increasing body-weight.

Sajous' Annual for 1895 quotes the unqualified clinical tests and endorsements of ferratin of such authorities (in addition to the authors of the product, Schmiedeberg and Marfori), as



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Germain See, Jaquet, Banholzer, John Harold and Hugo Wiener—the foremost therapeutists of Germany, Italy, France, England and Austria. In America, ferratin has been endorsed in print by Einhorn of New York, Fackler of Cincinnati, Chittenden of New Haven, Perekhan of Chicago, Spenzer of Cleveland, and verbally or in practice by hundreds or the foremost practitioners in all parts of the United States.

There are many iron compounds and blood tonics, all clamoring for preference; none has the scientific status, based on physiological investigation and proof, and endorsed on clinical records by authorities of highest rank and unquestioned sincerity, as possessed by ferratin and duly recorded in all standard text

and reference books of recent issue.

THE MAKING OF ARTIFICIAL LIMBS.

In all the misfortunes of man, there is nothing that subjects him to so much inconvenience and curious notice as the loss of a limb. For centuries the unfortunate "stumpers" have pegged along upon crude wooden affairs to replace the lost leg, or managed to get some aid from hooks or other contrivances to replace a lost arm. It is the province of medical science to save life at any expense, and while there is a much greater effort to save the injured or diseased limb now than formerly, the statistics show that a large number of persons annually suffer amputation of some one of their "luckless members" since this fact is accepted without need of proof, the manufacture of artificial limbs has been undertaken in a skillful and scientific way, by men of mechanical ability who know the wants of patients of this class.

The points which those who have been successful in this line have sought to accomplish are very important and are in part as follows: To secure a form and appearance as near the natural limb as possible; to provide lightness and strength at the same time; to fit and attach the limb to every variety of stump, so that not only use but comfort would be possible. In the case of the lost hand the maker has had to study how to make an artificial fore-arm and hand that would not only appear when gloved like the natural member, but which could be used to some extent as that supplied by nature. Writing, holding and striking power have been found necessary, and in many cases supplied. The writer has seen as fine a specimen of penmanship written with an artificial hand as the person could execute before he suffered the loss. The hand was made of Rawhide and Aluminum, by Dr. Munique of this city.

In supplying the loss of a leg or foot the limb maker has many difficulties to meet. He has had to study how to overcome difficult fittings, limping, awkward movement, noisy or creaky action of the movable joints and in short many difficulties that only long and patient study could solve of the medical profession.

Naturally these facts have led to the use of all sorts of material and methods. The success of many makers of limbs is



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commendable, and especially that of Dr. Munique whose announcement is found from year to year in the pages of the GAZETTE.

Dr. Munique has studied under the most eminent specialists in this line in Europe and has been granted original letters of patent upon several new devices for improving the artificial limb. His ankle joint is the most perfect duplicate of nature's action at that point, it seems that could be invented. Rawhide and Aluminum are the materials used in the making of these limbs and many people in the state of Ohio can testify to their satisfactory use. The strength of the Rawhide limb is wonderful when the weight is considered. An artificial leg weighs only from 3 to 4 pounds. Arms and hands, 8 oz. to one lb.

The above named limbs of Rawhide and Aluminum are almost

everlasting. Factory, 590 Woodland Ave., Cleveland.

"TURN THE RASCALS OUT."

It is to be regretted that any firm of manufacturing chemists whose methods and dealings with the drug trade have always been fair and considerate should find it necessary to protect themselves against the unprincipled substituter, as explained elsewhere in this issue. It is hard to believe the testimony which Fairchild Bros. & Foster have gathered against retail druggists, who have substituted other preparations when Fairchild's was distinctly ordered by physicians. We fail to comprehend what a druggist is thinking of when he permits such practices behind his prescription counter. Where is the profession of pharmacy drifting to if it has gotten to that point that a physician cannot depend upon a druggist filling his prescriptions with what is ordered? We should discredit these reports if they came from a less responsible source. Such practice if continued will work untold injury to the credit and standing of the entire pharmaceutical profession. Physicians are constantly claiming that one of the principal reasons why they handle their own medicines is that they are then sure of what they are ad-Any such wholesale accusation against the ministering. integrity of druggists is as unjust as it is untrue. thousands of conscientious, upright, honorable pharmacists, who would no more think of substituting in a prescription than they would of trying to pass a counterfeit bill. It is unfortunate that reflection must be cast upon these honest druggists by the acts of their unscrupulous brothers, but all of this hue and cry on the part of manufacturers about substituting cannot be ignored. Where there is so much smoke there must be some fire. Fairchild Bros. & Foster, by their action, place the charge where it belongs and this cannot fail to benefit honest dealers.

Every honest druggist owes it to himself and his profession to speak plainly on this subject. He should adopt the most strict rules for his own establishment; improve every opportunity to condemn the practice of substituting, and see that resolutions



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to this effect are passed by his local, State and national associations. Each druggist should make it a point to give his physicians and his customers to understand that when a prescription comes in to his establishment, it is filled with exactly what it calls for. There can be no middle ground, no compromise, no question on this point. Physicians who prescribe them and the manufacturers who make the goods must have no good cause for such complaints. The honor of the drug trade demands that this stigma be removed. It is not a question of dollars and cents alone, but professional honor is at stake, and we know that every honest pharmacist will join with us in the statement that the druggist who substitutes in his prescriptions is a disgrace to his profession.

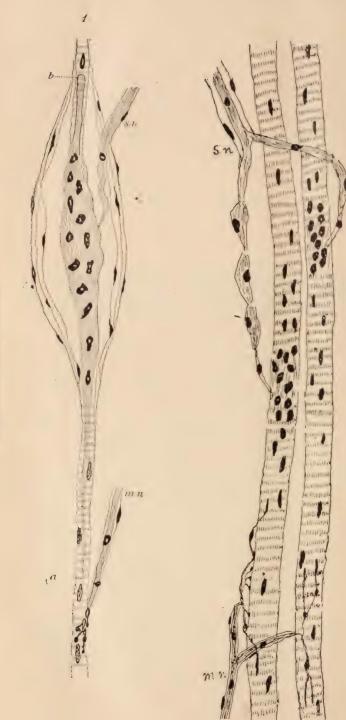


Jos. Wesley Malone, M. D., Blythedale, Pa., says: I am so well pleased with CELERINA that I cannot refrain from citing several cases of interest. I prescribe it very frequently, and have never had it to fail yet. I used it in a case of chorea. The patient was a little girl, ten years old, suffering from an acute attack. The case had been given up by two physicians and was a very bad one. The usual remedies, phosphorus, arsenic, etc., had been used, and had no great effect. I advised the attending physician, an old practitioner, and a good one too, to try CELERINA. He did not take much to the idea, but after urging him he consented, and the first dose gave relief. From that time, the child grew better, and in about four weeks was cured. It acted like a charm, and the old physician who had never used it, was so well pleased, that I am sure he will try it again. have prescribed it in nervous prostration, and have yet to find it to fail. It is pleasant to take, and produces no nauseating effects, as other remedies do when used for some time. frequently prescribe it with ALETRIS CORDIAL, and it also goes well with Peacock's Bromides. I shall continue to prescribe it, and shall watch its merits closely.

Perekhan, J. S.: Ferratin, Iron Tonic and Food.— (Chicago Med. Recorder, January, 1896.)—The author reviews the literature on Ferratin, quoting Schmiedeberg, Germain See, Dujardin-Beaumetz, Marfori, Jaquet, Fackler, Einhorn, and others, and then cites a case of anemia in his own practice "because the improvement under the use of Ferratin was so striking as to merit special mention." Patient, a girl of 17, became anemic after an attack of grippe, lost her appetite, etc.; condition on November 15th as follows: face pale, of waxy color, lips and conjunctiva almost white, headaches, insomnia,

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PART OF MUSCLE SPINDLE, FROG. Illustrating Dr. Sinler's Article.





THE SENSORY END-ORGANS OF VOLUNTARY MUSCLE.*

BY DR. CHR. SIHLER.

There are questions of as much interest to the practicing physician as to the specialist in histology, and such a question is that concerning the sensory nerves of voluntary muscle.

If we however turn to the latest authoritative works for information, we do not get very satisfactory answers. Thus Quain's anatomy has the following passage on this topic: "In muscles themselves, little or nothing is known as to the endings of sensory nerves, although that they possess such is shown by the pain when the muscle is cut. Kerschner has described the muscle-spindles as representing such sensory nerve-endings, but this view has not been generally accepted."

A year or more ago I published in the GAZETTE a reliable and easy method for demonstrating the endings of motor-nerves; this method is equally useful in showing up the sensory or end-organs. I refer of course to the muscle-spindles, which in my opinion have not been correctly interpreted, because important points in their structure have

*This article is a modification for the GAZETTE of a paper published by Dr. Sihler in the Archiv fuer Microscopische Anatomie.

been overlooked. As a matter of fact the books have very little to say on these structures; even those that describe the tendon-spindles fail to mention the muscle-spindle, nor have I seen any directions for demonstrating them.

On the snake these structures are readily found and demonstrated. If the bundles of muscle running on the back, on either side of the vertebral column are cut up and teased to obtain pieces of the thickness of a knitting needle, one-third of an inch in length there is generally found one or more of these muscle-spindles in such a piece of tissue. Fig. 1 represents such a spindle of a snake. The drawing is diagrammatic, but gives facts only.

We see here a thin muscle fibre, 8 to 10 times thinner than an ordinary muscle fibre, which at a certain place is enveloped by a spindle-shaped sack composed like Henle's sheath of elastic membranes lined with endothelial cells. During life, we may assume this sac to be filled with lymph. While inclosed in this sac the muscle fibre is somewhat modified in structure, we see that it is a little thicker, somewhat irregular in outline, that it stains deeply and contains a great number of nuclei. Then we further see, that the sac is penetrated by a nerve, s. n. (sensory nerve) which considering the calibre of the muscle-fibre is very thick. Having lost its sheath (Henle's) the nerve passes into the muscle, tapering down to a point at the place of junction with the muscle-fibre. Whether there are still finer ramifications of the nerve beyond this point must be left for future investigations. The dark background of the muscle due partly to the many nuclei, partly to its taking on a deep staining, makes the determination of this point rather difficult. Lastly, attention is drawn to a fact, which I have not found mentioned anywhere, but which is of the utmost importance, namely that there is another nerve-m. n. (motor nerve) seen, with all the characteristics of other motor nerves, which also attaches itself to the same muscle fibre. Thus these muscle-fibres are supplied with two kinds of nerves.

In the frog we find instead of a single fibre a group of muscle-fibres (4 to 16 according to some authors) enveloping themselves with a sheath of the same nature as just



described in case of the snake, we see entering this sheath a nerve of unusual thickness, surrounded by a sheath (Henle's) of unusual width. As the muscle-fibres themselves in this locality show the same accumulation of nuclei that is found in the spindle of the snake, and as there are a number of muscle-fibres, each with its nuclei crowded together and lying on top of each other, all that can be seen, when such a spindle comes to view is a thick nerve entering a mass of nuclei, in which it is impossible to trace the nerve; and this condition of things is faithfully presented in a figure in Kolliker's Histology. Kolliker describing the spindle in the frog says: "The nerves of the muscle-buds distinguish themselves by their unusually large diameter and similar width of their sheath (Henle's) and come in contact with its thicker portion generally as a single fibre at times in branches of one or two in number. Here their sheath passes into the perimysium of the bundle of musclefibres (Weissmann's) while the nerve-fibres divided repeatedly on and between the muscle-fibre, retaining the character of a medullated nerve, and then disappears from view. Surrounding these terminal fibres there are found a large number of round or oval nuclei, which undoubtedly belong to the pale end-fibres of the nerve."

While I expected to find that the nuclei just mentioned belong to such nerve-end-fibres, I was unable to verify this not unreasonable assumption, by further investigation of the muscle-spindle, which Kolliker calls a muscle-bud, because as we shall see further on, he supports the theory that here we have a stage of formation of new muscle-fibres. It is a hopeless task to try to follow the nerve in this conglomeration of nuclei, but with a little patient manipulation one can get a clearer insight into the structure of this organ. Having discovered a muscle-spindle in a bundle of muscle by alternate pressing out of this bundle with the cover-glass and teasing in glycerine (according to Beale) one obtains the spindle with only a few muscle-fibres accompanying it. This bundle is placed on the slide and 3-4 other bundles of similar size in such a way that the spindle will be in the centre of the cover-glass and the other bundles surrounding it about half way or more towards the periphery of the

cover. The purpose is to split the sheath surrounding the muscle-fibres, to isolate them and yet not to crush the struc-The little bundles of muscles will help to accomplish that, by protecting the spindle from too severe pressure and by acting as a spring which raises the cover-glass after it has been pressed down. The pressure is exerted by repeatedly forcing down the cover-glass with a needle, and watching the effect under the glass. Of course, in the majority of cases one will not succeed, but in a number of cases I have been successful enough to distinguish the facts, which are shown in fig. 2. This then is also a diagrammatic picture, giving however only facts and presenting of course, only a part of a frog's muscle-spindle. Observing the nerve we see that it is made up of short, irregular, often club-shaped internodes, the last link becoming rather thin. In the muscle-fibre we see as in the snake an accumulation of nuclei and a preponderance of the substance of which the reticular network of the muscle is built up. The union of nerve and muscle takes place where the nuclei are the most plentiful. The same question regarding finer nerveend-fibril as in the snake may be asked here.

I think it can be said that by using the method described one can get a better understanding of these structures than from reading the books.

In the frog as in the snake aside from this spindlenerve, we have the regular motor nerve which agrees with other motor-nerves in its terminations, see m. n. of fig. 2.

We see then that the muscle-spindle of the snake and the frog are built on the same plan, only in the frog it is more complex. In the frog however there is less difficulty to show the motor nerves than in the snake.

The purpose of this communication is to show that ¹these structures can easily be demonstrated. ²That their description in the books has been deficient, as only the spindle-nerve proper is mentioned there and 3to claim that these structures are the sensory organs of muscle.

My reasons for substantiating this claim are:

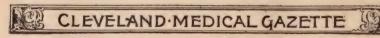
- (1). The structure of the spindle is such that it serves the purpose of sensation perfectly.
 - (2). The tendon-spindles seem to me analogous

structures, and he who takes these to be sensory organs should have no difficulty in looking upon the muscle-spindles as sensory also.

- (3). The important fact is taken in consideration, that we have two kinds of nerve-endings, the ordinary motor-nerve-ending, and a second kind which differs altogether from the motorial ending. Here we have a sheath, a sac, a peculiar nerve. What reason have we to assign to these structures the motor-nerve function, which is amply provided for?
- (4). Finally the other interpretations of these structures are exceedingly unsatisfactory. Perhaps on account of the accumulation of nuclei, they have been looked upon as being pathological formations; a simple inspection of such a beautiful and elegant a structure as the spindle in the snake should annihilate this view.

Kolliker has offered the theory, that the spindles indicate a formation of new muscle fibres from an elder one. I cannot accept this view for several reasons. that in the snake we always deal with a single muscle fibre seems absolutely fatal to this. Furthermore if Kolliker's view were correct we should find various stages of this process, we should see the original muscle fibre splitting, we should see the small muscle fibres showing signs of being in the formative stage, by a proliferation of nuclei not only in one place but throughout the whole length, the matting together should not be confined to one spot, and a reason for the very peculiar capsule should be given. Finally Kolliker mentions the spindle-nerve only, taking it for granted that it is motor in character, and fails to call attention to the ordinary motor-nerves, with which these muscle-fibres are also provided. A theory however which fails to take in such an important fact will in all probability not be found to be true. Of course I do not wish to deny that such formation of new muscle-fibres is going on, but that the typical muscle-spindles have anything to do with this process, I cannot now accept.

I think we have in the present stage of investigation as good evidence for considering the muscle-spindles as sensory end-organs as we have for considering the tendonspindles as such.



If section of the posterior roots will be followed by degeneration of the spindle-nerves the proof will be absolute. If section of the anterior roots will leave them intact the evidence will be next to absolute and this, I think, has been furnished by Sherrington.

Quain's statement that the pain experienced when a muscle is cut speaks for such end-organs, I cannot subscribe to. Pain might be caused by the nerves running in the fascial and connective tissue surrounding smaller or larger bundles of muscle. The muscle-spindles just discussed would, do I am inclined to think, serve the so called muscular sense, which is used every second of our waking state in regulating all our movements, and when we consider its wonderful capabilities in singing and using our eye-balls we cannot but be dissatisfied with the present teaching of histologists on the sensory end-organs of muscle.

I was very much interested in finding so many of these organs in the snake; but when we consider that this animal, more than many others is obliged to take the condition of its muscles or its muscular contractions as a guide and as a stimulant for its movements, we can see the reasons for this condition.

If I understand Quain and other books, Kerschner supports the theory defended in this paper. I wish to add that I have not read any description of his work, nor have I seen any of his drawings. Propositions therefore, which both of us uphold, rest on evidence obtained independently of each other, and would therefore seem to deserve so much more to be accepted as true.

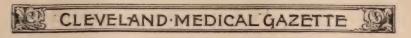
THE TREATMENT OF PNEUMONIA IN CHILDREN.*

BY D. S. HANSON, M. D., CLEVELAND, O.

Mr. President and Gentlemen:

What is useful in all cases of Pneumonia in children?

The object of this paper is not to introduce any new method in the management of this disease, even were I able, but rather to emphasize those things that are known, and



that may and should be done in all cases. It is a well known fact that the simple things in a routine practice are often neglected because so oft repeated they lose their full value in our estimation, verily, omitting that which we understand well how to do, is little better than want of knowledge of what is best and proper to do. I have here tried to formulate a plan to follow in all cases that would always be beneficial and never do harm.

It is not medication that I wish mainly to consider, for if all else essential is done there will be little need of drugging. For convenience of discussion we have arranged the subject in five propositions.

1st. Arrangement of bed, clothing and room occupied by little patient.

2nd. Ventilation and light.

3rd. Necessary food and its preparation.

4th. Local measures.

5th. Medication.

Before beginning to discuss these divisions I wish to draw your attention to the fact that we are dealing with an exceedingly delicate structure, one that has such indignities heaped upon it, that the wonder is that we have any sound lungs in a civilized country. If sound lungs are not given a fair chance, we should see to it that one afflicted with this disease, while under our care should have as far as possible.

1st. See that the little patient has a comfortable bed, that he is not cramped up in some short crib, rocking-chair, or other piece of furniture not appropriate. That he has a clean skin, and that he is properly clothed in a shirt and night-dress only, that he be kept in the recumbent position, but changed sufficiently often to prevent hypostatic congestions, and that nervous irritability is not increased by useless noises or disturbances of any kind.

2nd. Ventilation and light all admit should be both abundant and best attainable, yet the fact remains that nothing so essential is more frequently neglected or left with insufficient directions to incompetent persons. The crippled lung in order to be placed in the best condition must have an abundant supply of oxygen, and not be over-burdened with effete respiratory products. I say effete respiratory

products instead of simply naming carbonic acid, because the experiments of Weber have shown this to be not the only toxin eliminated by the lungs. He placed a patient in a salt bath containing three per cent. of carbonic acid, and after several hours little or no effect was produced, while he cites the fact with which we are all acquainted, viz., that headache, languor, and even nausea follow confinement in a crowded and ill ventilated room, even when the air contains less than one per cent. of carbonic acid.

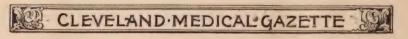
How true the saying of Angus Smith "that we are much more particular about what we eat and drink than about the air we breathe, while the latter is used in much the larger quantity, and with effects just as deleterious when impure." The variation of only a trifle between the proportion of the oxygen and effete products, when the volume consumed is taken into consideration amounts to a great deal, and means very much to a lung already overburdened with imperfectly oxidized blood. Theoretically the addition of oxygen to the inspired air would do good here, practically I believe it has not proven a great success. We should never lose sight of the fact that sunlight favors the development of ozone, nor that window blinds are one of the curses of civilization. The latter is especially true of small houses when occupied by people who are uncleanly. Thousands of houses are dark, damp, and unfit for human habitation from this cause alone, and such diseases as the one under consideration are developed and fostered thereby, and its favorable termination ofttimes prevented. Certainly with a little attention from the medical adviser blinds can be thrown open during his attendance at least. Downs and Blunt, Tyndall and other experimenters have shown that numerous germs and fungi are in a condition favorable for rapid development when in just such surroundings. Dr. Weber says that in his experience lack of sunlight produces depression of spirits, lack of energy, loss of appetite, disturbances of digestion, turbid urine, and a kind of homesickness. Oxygen, it is well to bear in mind, is the great antiseptic. To oxygen the body owes its aseptic condition. Bodily energy is due to the oxygenation of many complex substances which would decompose without



the required supply of this element, and doubtless many a case of pneumonia has had a fatal termination from this form of auto-infection—while ventilation is so essential, chilling must be as sedulously avoided, for chilling produces nervous disturbances and cold necessitates a larger food supply, while the digestive organs are already incapable of properly caring for a necessary amount. Other unfavorable results not necessary to enumerate may result. The watch-word should be: plenty of light, pure air in abundance without chilling.

3rd. Food and its preparation.

Leibig is credited with the statement that three men having a like task to perform, one with a breakfast of meat and bread, the next of cheese and salt fish, and the third of potatoes would look upon it from entirely different standpoints. The albuminoid foods are of the most importance, but the fact that the fats increase energy and prevent the rapid oxidation of the albuminoid tissues should not be lost sight of. What have we that combines the two in both a palatable and readily assimilable form? The reply is ready in one word, milk, no other food can be so relied upon and in the great majority of cases nothing else is required. A little further inquiry into the reasons why this food is so popular reveals the fact that it contains little potassa, a salt that possesses toxic properties to no small extent, especially is this true in acute disease with deficient kidney elimination. Furthermore it has been shown by actual experiment that less toxins and poisonous alkaloids are developed in the intestinal tract from this than from any other food that possesses equal nourishing qualities. This one thing, intestinal toxemia, should be as closely watched and as energetically attacked, when present in this disease as in typhoid fever and other diseases where it is known to be the essential element in ætiology. In a certain percentage of these cases milk becomes distasteful and will not be taken, then the question arises what is the next best thing to do, first I would suggest that too large a supply for the first few days only embarrasses the digestive organs, destroys what appetite they have and ruins our prospect of continuing the milk or anything else. This is a mistake most frequently



made and pouring in food at the solicitation of parents and friends only needs mentioning to be condemned. But when in spite of all precautions milk cannot be given what can we give to produce sufficient support to the vital forces. mention beef tea, not the kind the average patient would get if directions were given simply for beef tea, but beef tea made after certain specific formula, the best I believe to be that made with an acid, as follows: 1lb, of scraped, ground or chopped lean beef macerated in 1 pint of cold water for 6 hours, then add 10 drops of hydrochloric acid and heat to 160° Fahrenheit for half an hour, salt to taste. A beef tea made by use of soda and pancreatine is also of great value either of these preparations I believe to be better when freshly prepared and inspected by physicians than any beef extract on the market. Beef juice made by squeezing juice out of slightly broiled steak is a splendid article for occasional use when children are not too young. Other preparations of animal foods of more or less excellence and formulas for their preparations have been frequently published, a good list can be found in the appendix of Thompson's Dietetics. A good point to remember is that good formulas become bad ones in the hands of a poor cook. Useful additions to milk are numerous, water is one of the best, especially is this true in the early stages when thirst is great. It is both beneficial to his comfort and eliminating organs. Barley water made by boiling 2 ounces of washed pearled barley in a pint of water for half an hour is especially good, preventing clotting of milk besides having some inherent nourishing qualities of its own. Milk porridge and milk toast when children are not too young are often very useful and convenient. great many tables have been constructed to show the comparative value of foods, both with regard to their digestibility and nourishing qualities, such tables are necessarily inaccurate if not actually misleading, owing to the great variation in the particular samples, by time and manner of preparation, by condition of digestive organs, personal indiosyncrasies, etc. I quote the following as a fair sample said to be digestible in order named: Oysters, soft boiled eggs, sweet breads, white fish broiled or boiled, such as the following, blue fish, shad, red snapper, wake fish, smelt,

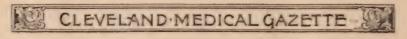


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chicken broiled or boiled, lean roast beef and beef steak, and after mentioning numerous other articles, ends with those said to be least digestible, as, smoked, dried and pickled fish and meats of all kinds.

4th. Local measures. With relation to local external measures it must be admitted that they have fallen into innocuous desuetude, for recent works on Pædiatrics have little or nothing to say regarding them. Not long ago the subject of treatment of pneumonia was under discussion by the Academy of Medicine of the City of New York and the only reference made to external measures was made by the gentleman who closed the discussion and then only to compliment them on the fact that none of them had even mentioned poultices. However, we know that reflex and sympathetic influences have their effect on the lungs as well as on other organs and parts of the body. That the skin of chest and upper abdomen are supplied by the intercostal nerves, that each nerve fiber of the intercostal nerves are connected with filaments from the sympathetic ganglia. Therefore, it is but rational to suppose a proper protection to the chest during an attack of this disease could have no other than a salutary effect. While the child is suffering pain a poultice properly applied will do good, the method of their application is the important point, to my notion the best way is to first cover front and sides of chest and upper abdomen with a single layer of light flannel, then make poultice thin, wet, light and hot between two layers of muslin and cover quickly with oil silk or oil muslin. After pain subsides the application of some stimulating oil or ointment with covering chest and upper abdomen with a generous layer of cotton wadding is probably as well as can be done. Any method that secures a uniform temperature to surface of chest and prevents exposure to the atmosphere will answer very well.

5th. Medication. As to medication I will repeat what has often been said before, that is, of first importance is attention to the digestive organs, for nature can hardly do her best work to restore a diseased lung while being poisoned by absorption of toxins from the alimentary canal. A congested and inflamed lung can hardly do well with a bloated



abdomen pressing upon the diaphragm, neither will the kidnevs do the work so necessary for them to do until this condition in abdomen has been corrected. Carbonate of Ammonia has a good effect in liquefying the exudation and promotes absorption by stimulating pulmonary circulation. Suppositories of quinine and strychnia are very essential during the febrile stage and later strychnia alone does just as well and perhaps better. Stimulation is quite generally indicated. I have made no distinction between lobar and lobular pneumonia because the measures I have here advocated are applicable to both, of course the broncho-pneumonia will tax the knowledge and ingenuity of the physician most owing to its long duration, and will require a greater variation in food and medication. Steam of creasote water is very useful in this form to alleviate troublesome cough. Now, gentlemen, I wish to repeat that I do not wish to be understood as advocating a new form of management of these cases, but simply a closer adherence to, and observance of, the details of those things that are useful in each and every case, with a simple and easily applied therapeusis. And I am certain that if the plan here outlined is closely followed little else will be necessary, and results will be so favorable that new remedies and complex prescriptions will be less frequently sought for. And when you make your last call and ever afterward.

Your patients with laughter will greet you. With a face all aglow with delight; For they will be here to meet you, Not perished and gone from your sight.

You are glad, for you did not cheat them, They're here for microbes and bacilli to maim; And perhaps you may again treat them, So add to your wealth and your fame.

1419 Broadway.



PEDIATRICS: PAST, PRESENT AND PROSPECTIVE.*

BY S. W. KELLEY, M. D., CLEVELAND, O.

Gentlemen:

I had heard the term "executive ability" defined as "an aptitude in getting other people to do your work," and had been proceeding upon the idea that the principal duty of your chief executive officer was to get other men to read papers or make addresses rather than to do so himself. However, it seems that the President of this Society is expected to add to his other duties that of addressing the meeting, and one could wish that the order of business went so far as to furnish him something to say upon such an occasion, after the handy manner of a liturgy. Left to my own choice of theme and matter, personal preference would have led me into the discussion of a topic of surgical disease in childhood; but viewing more broadly the work that is before this Society and considering that not only scientific and purely technical phases of pediatrics may properly engage its attention. I have felt it a duty to present a more general subject related thereunto. This I do in the hope of increasing the interest felt in this branch of learning, and in this Society devoted to its cultivation. I shall not promise that this small contribution be conclusive, but only suggestive in its scope.

When first the words of the title were given out, I had in mind to sketch for you the past and the present of pediatrics as exhibited in its literature and in its practice, from the historical point of view, and then in the light of its history in the past and its progress in the present, and judging by the signs of the times, hazard a prophecy upon its future. But a little thought convinced me that my short sketch would become a lengthy panorama which would require several hours to unroll before you. May I hope that this suggestion will lead some member of this Society to attempt a "History of Pediatrics"? Who is to be the distinguished author? Do I see him before me? Who would not warm to such a theme?

^{*}An Address delivered before the Ohio State Pediatric Society, at Columbus, May 27, 1896.

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But I have chosen for to-day another plan. By way of estimating the progress, present state and prospects of pediatrics, I have sent letters of inquiry to many teachers of this branch in various medical schools of this country, and a few in Great Britain. In these letters a number of questions were asked which I will read to you together with a summarized account of the answers received.

The replies to my letter of inquiry, were mostly from teachers of pédiatrics, but quite a few of them from the Deans or Registrars of Colleges in the United States and Canada. Sixty-five of the replies were sufficiently explicit for tabulation. Some few I must present separately, along with those from abroad.

In answer to my questions, I am told as follows: Of the 65 colleges in this country and Canada, Pediatrics is taught as a separate branch in 50, and in connection with another chair in 15. The teaching is acknowledged to be didactic only in 9 colleges, clinical only in 5, and claimed to be both didactic and clinical in 50. One of the writers failed to answer this question, and I have labeled this Indefinite, 1.

So far as one may judge by these answers (and this is corroborated by the general opinion of the profession in this country) it is expedient that there be a separate chair of Diseases of Children in the medical college and that the teaching be both didactic and clinical.

The next question was: Does the Pediatrist teach the medical side only or also the surgical side? The answers indicate that the medical side only is taught in this department in 37 out of the 65 colleges, that both medical and surgical is taught in 26. The remaining 2 left the question unanswered. In 3 of the colleges in which both medical and surgical pediatrics is taught as a separate branch, there are two different teachers for the two sides, one teaching medical, one surgical pediatrics; 2 of these three are post graduate schools. This question is closely related to the next one which was: "Does the teacher individually consider that pediatrics includes the surgical as well as the medical diseases of children?" This was answered affirmatively 40 times; negatively 13 times. The remaining 12

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leaving the question unanswered, or answering so indefinitely that I could not tell where to place the vote.

There can be no doubt that if medical diseases in children present peculiarities sufficient to warrant particular study, that surgical pathological states also are modified by the anatomical and the physiological peculiarities of the developmental stage of early life; and some are met with in no other class of patients, and nearly all behave in a manner requiring a qualification of the statements concerning them when made upon the adult patient. Whether both the medical and the surgical side of pediatrics should be taught in college and practiced by the same man, will depend upon the circumstances and the man.

My next question was: "How many hours per week does your curriculum give to pediatrics?" One hour was given as the answer from 16 colleges, 2 hours from 21 colleges, 3 hours from 3 colleges, 4 hours from 6 colleges, 5 hours from 1 college. One gave the answer as 21 hours, and one as 26 hours. It was explained, however, that out of the 21 hours only 4 were recitations, the rest being devoted to clinical and dispensary work. I presume the 26 hours should be explained in the same way. The answer was omitted or answered indefinitely 14 times.

My next question was: "How many hours per session?" This seems to have been unfortunately worded, for it was in several instances misunderstood. Perhaps I should have said: "How many hours per term, or per year, or per school year, or per semester?" However, 44 colleges answered this question definitely. 1 devotes 16 hours per session, 4, 20 hours, 3, 24 hours.

3-	26 h	rs.	1-	30 l	nrs.	1-	32	hrs.
2-	36	66	3-	40	66	1-	44	66
2-	48	66	5-	50	66	2-	52	6.6
1-	56	66	1-	58	66	2-	60	6.6
2-	64	66	1-	65	66	1-	66	6.6
2-	80	66	1-	96	66	1-1	112	6.6
1-1	120	66	1-1	144	66			

The average of the 42 being 32.26 hours.

I presume that at least a part of the discrepancy in these answers arises from reckoning the hours of recitation



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only or of didactic lectures only, in some instances, while in others the clinics or even the dispensary or out-patient practice under instructors may be counted. For instance in my own teaching the curriculum gives 2 hours a week through the session of 26 weeks, that is 52 hours, and the hours may be devoted to didactic or clinical lecture or to operation or demonstration according to the nature of the subject and material in the children's ward or dispensary. But no mention is made of the work in the out-patient department of the Cleveland General Hospital where on three days in the week from one to three hours are devoted to seeing children with a section of the senior class, and nothing is said of evening "quizzes" or recitations.

The next question "Is pediatrics taught to Seniors only, or to Juniors also?" elicited the statements that of 55 colleges which gave definite answers, this branch is taught to both Seniors and Juniors in 28, to Seniors only in 22, to Juniors only in 2, during 3 years in 1 and to post graduates only in 2, these being post graduate schools.

One correspondent mentions that in his school Pediatrics is obligatory upon Seniors but optional with Juniors.

By these figures it would seem that in the majority of schools in which pediatrics is taught as a separate branch it is taught to both Junior and Senior students.

I next inquired "How much does the branch count in percentage necessary for graduation," and this question seems to have been variously interpreted. However, most of the answers are to the point if not mathematically accurate. "Same as any other branch," or words to that effect was the answer 27 times. 10 was the percentage given in two colleges and 1 in one college. The question was answered 70 per cent. or 75 per cent. in 4 instances, which I take to mean the percentage required to pass in this branch and not in relation to the other branches. One answered that it counted 150. All these seem to indicate that pediatrics is regarded as a full department in 36 at least out of 63 colleges (really in 36 out of 51 which answered). While it is not required for graduation, has "no vote" or counts for zero in 8 of the number. In one it has ½ a vote, and in 7 it is figured in combination with other branches-either obKelley: Pediatrics; Past, Present, Prospective. 611

stetrics, gynecology and obstetrics, or general medicine. Fourteen of the 63 correspondents left the question not definitely answered.

These figures are more significant when taken in connection with the answers to the next two questions.

I next queried, "Can you answer the same questions regarding your school as it stood 10 years ago?" The idea of course being to get at the amount of progress in the past 10 years. Some answered "yes," but still did not deign to do so. Twenty-one of the 63 replying thus or leaving the question unsatisfactorily answered. Ten of the colleges in this list were not in existence ten years ago. In 14, it was taught the same ten years ago as now. In 9, it was in combination with other branches, oftenest with obstetrics. Four acknowledge that it was not taught at all, and 3 that it was then taught "very little and no examination required," or "only a few lectures" or "clinical only." Four claim that it has become "much more prominent" or "greatly extended" since ten years ago. As to the condition of affairs 20 years ago, 1 says it was "not thought of," and 1 says it was "not taught anywhere." One says "taught as a separate department," one of the few in this country." Five say it was not taught in their school. One can't answer. Six say it was taught but little, or in combination with other chairs. Twelve say that their school was not in existence 20 years ago, and 38 significantly leave the question entirely unanswered.

I next ventured to inquire "How many practitioners in your city devote their whole attention to pediatrics and "none" was the answer from 41 cities in which medical colleges are located. Four different cities can boast of one each, one has two, one is said to have 8 and we are asked to believe that in one city there are 20 or 25 specialists in diseases of children. This I regard as a misconception or a mistake. The rest leave the question unanswered.

Thinking there might be some who, not entirely limiting their practice to diseases of children did so to a great extent, I asked "How many enjoy a considerable reputation and practice in the diseases of children." One man tells me that "all the 75 doctors in his town claim it." Ten have

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no one thus distinguished in their city, 27 have numbers ranging all the way from 2 to 25 as follows: 3 have 2, 9 have either 3 or "several," 8 have 4, 3 have 6 apiece, 3 have 10 each, 2 have 12, and one is blessed with 25 children's doctors of more or less celebrity. The remainder of my correspondents remain silent on this delicate question, excepting 5 of them who owned up squarely that they "didn't know."

My next interrogation was a trident, a kind of a three pronged arrangement, calculated so that if it couldn't stick them on one point it might on another. It read as follows:

Do you consider it practicable? or desirable? to "specialize" pediatrics, $(i.\ e.$ as eye and ear, or gynecology have been specialized) or probable that it will become so specialized in the near future?

Twelve dodged the first prong altogether, but I caught 23 who did answer it in the affirmative, "Yes," they do consider it practicable to specialize pediatrics, and 30 who said "No," they do not consider it practicable to specialize. Now as to whether it is desirable to specialize, 26 said "Yes" and 23 said "No," and 16 either answered too indefinitely to be classified or did not venture to answer at all.

On the prong of "probability" I caught 48 answers evenly divided between yeas and nays—24 apiece. While 17 either held no opinion or did not care to air it.

On the other hand quite a number expressed themselves further upon these points. Dr. H. A. Kinnaman of Keokuk, whom I have tabulated as not thinking it practicable nor desirable to specialize, nor probable that pediatrics will be specialized in the near future, has added "Not in this place." Dr. Breysache says it is not practicable nor desirable in so small a city as Little Rock, (30,000) and he does not think it will be specialized in the near future, but will be after many years.

Dr. Uzziel Ogden, Dean of the Med. Dept. of Toronto University, does not think it practicable nor desirable in that city whatever it may be elsewhere.

Dr. John E. James, Registrar Hah. Med. College of Philadelphia, says "No," "No," except in surgical parts and orthopædics."



Dr. Hunter H. Powell, of Western Reserve, Cleveland, writes: "I believe it impossible to specialize pediatrics as other departments have been specialized. The pediatrist must be a specialist as regards special features of physiological and pathological processes associated with infancy; special features as compared with adult age. He needs himself, to practice medicine, surgery, ophthalmology, dermatology, neurology, and orthopedic surgery. His clinic is polyclinic. He must call in the specialists in unusually obscure cases only."

A physician of Baltimore, Dr. A. K. Bond, writes: "Dear Dr. Kelley: I have answered the above willingly. I wish you success in your useful investigation. With us the obstetrician is the first choice as child's doctor. I think it very difficult for anyone to make himself exclusively a child's doctor. He may, however, be known as an expert in their diseases. I doubt if mothers would want him as child's physician to do major surgery on the children. Orthopædics, even, seems to have failed in this city as apart from general surgery. Although one man of wealth, at least, took it up as a specialty, I think he has ceased to practice in any line. One of our best child's doctors (now deceased), trained himself as a gynecological surgeon, then became somewhat known as a child's doctor, and after his marriage got a good practice as obstetrician, apart from pediatrics. He was poor and had to take what he could get for support. One of our best living children's doctors here has his chief income from gynecological surgery.

Two or three others are major surgeons (railroad surgeons in private). One of the most exclusive pediatrists works a great deal in bacteriology of the fæces. I do not think his children's practice large in private, nor that he touches orthopædics. Several others, like myself, are general practitioners, compelled to take for support whatever comes along in the medical line almost exclusively. The difficulty is that the younger practitioner is often inferior, even if he wishes to be a pediatrist, to old physicians who do general practice. Only by mastering the more abstruse details of pediatrics, including nervous, developmental and other subjects unknown to the general practitioner can he

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compete with them. One of our medical pediatrists—the same who works on fæcal bacteriology, does intubation; but I think he who does intubation ought to stand ready for tracheotomy which may be instantly demanded to save the child's life. I am, myself, much puzzled to know what can be made of pediatrics as a specialty and will be happy to receive your article when published."

My letter of inquiry to Tulane University of Louisiana, was referred to Dr. Rudolph Matas, Prof. of Surgery, and he writes: "My personal impression is that the specialties of medicine and surgery will encroach in future as they do at present upon the domain of pediatrics to the extent of reducing the pediatric specialty subordinate to the other specialties. There will always be men who will be more skillful in the management of the diseases of children in all communities, but it is extremely doubtful that pediatrics will ever rank as a distinct specialty like oculistry, otology, or laryngology or orthopædics. The simple reason for this lies in the fact that a special knowledge of the diseases of children is largely a synthesis of the other specialties, and that what is not included in the other specialties will be of such a general character "that the 'general practitioner' must claim it as a part of his special province."

The same letter being referred by Dr. Matas, to Dr. E. D. Fenner, Lecturer on Diseases of Children in Tulane, he endorses Dr. Matas' remarks and adds, "I think a man may devote so much of his time to the study of disease in childhood as to become in effect a specialist, but it seems to me that such exclusion of the adult cannot but ultimately render the specialist less broadminded in his view of disease than if he studied and was familiar with the manifestations of sickness in grown people."

Dr. V. C. Vaughan, Dean of the Department of Medicine and Surgery of the University of Michigan, writes: "In answer to your questions of recent date I will say:

1. Medical Pediatrics is taught by the Professor of Medicine, both clinically and didactically. Surgical diseases of children are taught by the professor of surgery.

2. There is no special number of hours set aside for the teaching of Pediatrics.



3. Pediatrics is taught to both Seniors and Juniors.

4. There are no physicians in our city devoting their exclusive attention to Pediatrics.

5. I see no more reason for isolating the teaching of Pediatrics from general medicine and general surgery than there would be in separating senile diseases in the same way."

Now to show how far opinions will differ I may mention that Dr. John Larrabee of Louisville, Ky., says "there is more reason for specializing than in any other branch."

Dr. Starling Loving writes "1, Pediatrics is taught in Starling Medical College as a separate branch, and not in connection with any other chair.

2. The teaching is mainly didactic.

3. The lectures are medical and surgical, but the surgical diseases of children are considered mainly by the Prof. of Surgery.

4. Instruction is given to Seniors and Juniors.

5. The candidate must have the vote of the teacher of pediatrics before he can pass.

6. Ten years ago we had no chair of Pediatrics, the subject being considered by the Prof. of Obstetrics.

7. I do not know of any one here who gives his entire attention to the subject.

8. I know several gentlemen who have reputation for skill in the management of diseases of children.

9. I think the well equipped general practitioner can do more good than the specialist, and do not think that pediatrics will become a special branch, here at least, for many years to come, and am of opinion that it will be bad for the children whenever it does become so."

Concerning this latter point, Dr. W. V. Anderson writes from Toledo: "I believe that the field is ripe for the harvest, and that very soon pediatrics will be recognized as honorable and scientific a specialty as gynecology or eye and ear."

Verily every man has a right to an opinion. I shall express mine by and by. First I asked another question—this time a double-header—warranted that if it couldn't "find what it was sent after, it would fetch something else."

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It read like this: "Do you predict for pediatrics a moderate progress as a science and in the estimation of the profession and the public? or a very rapid advance relatively to the other branches? This question fetched one man who averred that he was "no prophet," and so escaped; 30 expressed their faith in "moderate progress;" while 12, more enthusiastic, expect a very rapid advance; 20 are silent, whether dead or only sleeping I do not know.

Upon this point I quote again from Dr. Starling Loving, who says: "I think the department will grow with practical medicine and only in proportion with the advance in that branch. My opinion in this regard is based on examination of the later works on diseases of children, which contain very little which is not found in all the good works on general practice." Observe that he did not say the latest works but the later works, but even then, I'll leave it to any man familiar with the literature of pediatrics to say whether or not it contains "very little which is not found in all good works on general practice."

If I am not trespassing too much upon your time I would like to present in this connection a couple of letters from over the water. The first from Edinburgh bearing date April 17. It reads as follows:

24 MELVILLE STREET, EDINBURGH, April 17, '96.

Dear Dr. Kelley:

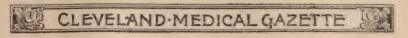
Dr. John Thomson and I have concocted the enclosed between us. We hope it is what you want. The new ordinance recognizing Pediatrics or Ear Diseases as compulsory to graduation in the University was just published a day or two ago. I enclose it.

I really can't tell you much about the rest of Scotland or about England—in fact I had better leave that part of your letter unanswered. Prof. Stevenson of Aberdeen

University might be able to tell you something.

Yours faithfully,
I. W. BALLANTYNE.

1 a. Edinburgh University. Pediatrics is taught as a separate branch by two teachers called *Lecturers* but not *Professors*. The instruction they give is wholly clinical. Hitherto the attendance at the course of instruction given by



these gentlemen has been wholly optional and the number of students has been exceedingly small. The Professor of Midwifery is *supposed* to impart systematic instruction in diseases of children to his compulsory class in the form of three lectures in a course of 100.

New ordinance, slip enclosed, q. v. Now compulsory in a certain sense.

- 1 b. In the School of Medicine of the Royal Colleges (otherwise called the extra-mural school) of Edinburgh there are five lecturers on diseases of children who give courses of various length, partly didactic, partly clinical. As the subject is one not examined upon for either the colleges or university degrees, the number of students attending these courses has been very small.
- 2. In Edinburgh (in both University and Colleges) the diseases of children is regarded as entirely medical—that part which is surgical is taught in the Surgery and Clinical Surgery classes. The two surgeons in the sick children's hospital, however, give lectures on Surgical Diseases of Children.
- 3. The amount of teaching has rested entirely with the teacher's estimate of what was needful—viz: from 40 to 12 lectures including clinical demonstrations.
- 4. The classes are usually composed of 4' 25" year students, i. e., seniors.
 - 5. Nil.
- 6. Ten years ago there was no teaching in the University save that given as above by the Professor of Midwifery. In the extra-mural school there were either one or two clinical and one didactic course.
- 7. Two decades.—Don't know.—Believe Prof. Stevenson (now of Aberdeen) used to lecture in extra-mural school.
- 8. One devotes almost all his time to Pediatrics—the others all take Midwifery as well.
- 9. Consultations in diseases of children are probably divided among about 10 men.
- 10. In Edinburgh, not practicable. The Pediatrist ought to be thoroughly in touch with all branches of science.

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11. Tendency to it being more specialized than hitherto.

12. ?"

The clipping referred to is from the "Scotsman," giving an account of the meeting of the Edinburgh University Court at which they made some additions to the requirements for graduation.

"The Court resolved as follows:-

a. Every candidate for these degrees shall be required

to attend in addition to present requirements:-

1. A course of instruction in mental diseases, given by the University lecturer or by a recognized teacher, consisting of not less than six class-room meetings for lectures and demonstrations, and ten meetings in the wards of a recognized asylum for the insane.

2. Post-mortem examinations in a recognized hospital for a period of at least three months, during which practical instruction is given in the methods of making post-mortem

examinations, and in framing reports.

3. A course of clinical instruction in infective fevers, given at not less than twelve meetings in the wards of a recognized hospital where clinical instruction is given on cases of infectious diseases.

4. Instruction in diseases of the eye, given by the University lecturer or by a recognized teacher, at not less than twelve class-room meetings and twelve meetings for clinical instruction in the wards of a recognized hospital or in the wards of a hospital and in a dispensary both recognized for the purpose. The course to include efficient practical instruction in the methods of examining the eye.

5. A course of operative surgery, conducted by the Professor of Surgery in the University or by a recognized

teacher.

b. Every candidate shall also be required to attend

any one of the two following courses:-

1. Clinical instruction in children's diseases, given by the University lecturers on this subject, or by a recognized teacher or teachers in a hospital recognized for the purpose, at not less than four lectures and ten meetings for clinical instruction in the wards, together with four meetings in the out-patient department of the hospital, with attendance at post-mortem examinations.

2. Instruction in diseases of the larynx, ear, and nose, given by a University lecturer, or by a recognized teacher, at not less than six class-room meetings, and twelve meetings for clinical instruction in the wards of a recognized

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hospital, or in the wards of a hospital and in a dispensary, both recognized for the purpose."

Dr. Henry Ashby, Lecturer on Diseases of Children in Owens College and Examiner in Victoria University, Manchester, writes: "In reference to the above, 20 lectures are given during summer to a class of about 70 or 80 students, all seniors. Some of them in addition attend outpatients and also inpatients at the children's hospital." In answer to the list of questions, he says Pediatrics is taught as a separate branch, on the medical side only. He considers that the subject includes the surgical as well as the medical The curriculum gives 2 hours per week or 20 per session (during summer only). In final examination it counts 150 as a part of medicine which counts 800. years ago it was the same as now; 20 years ago there was nothing taught. There is only one man in Manchester who devotes his entire attention to children and perhaps not more than one who has any great reputation in this line.

He thinks it "partly" practicable and "partly" desirable to specialize but does not think it will probably be specialized soon. Mr. Edmund Owen of London answers "No" to the first three questions. The teaching is clinical only. The question whether the surgical should be included he leaves unanswered perhaps thinking it too obvious to need an answer. When he comes to the word "pediatrist" he writes: "I do not know this word but guess its meaning." Under "pediatrics" he writes "I have never heard this word used in England." It was taught just the same ten years ago. As to the number in London who devote their whole attention to children, he says: "Not a single one I think-it should not be a "specialty." As to the desirability of specializing he says "A thousand times No." "I should think it the worst thing in the world for a man to give up his life to the study of children's diseases. The effect would be "cramping" on the individual and prejudicial. I think to the interests of sick children. At the Gt. Ormond St. Hospital, the mother of children's hospitals in England, we will not have a man on the staff unless he is, or is likely to be shortly on the staff of a general hospital. You will not like

my reply, my dear Kelley, but at least you will not find fault with it for want of clearness. I have a great dread lest the field of children's diseases should be tilled and cultivated by persons who neither could nor would look over the hedge. You cannot draw a line between children and "non-children;" and the girl who is a child in New England is a mother and house-wife in New Orleans."

Now, gentlemen, I said at the beginning that my paper was intended to be rather suggestive than conclusive, and when I offer a few propositions in closing they are not meant as a necessary conclusion reached through the testimony collected and spread before you. They are only an expression of my own opinion, albeit that opinion has been in a measure influenced I believe corroborated by the facts and expressions offered by all these various men.

There is no denying the fact that the peculiarities of children and their diseases have grown to such proportions as to require separate treatises and text books and special teachers, as has been found necessary in the division of the work of teaching in the majority of our colleges. There can be no doubt that pediatrics should be taught both didactically and clinically, and that those colleges which do not teach it clinically as well as didactically will soon be regarded as "back numbers."

Venerable old Edinburgh has at length concluded to make it a compulsory branch and the conservative gentlemen of the south of England will get around to it after awhileonly give them fifty or a hundred years yet and don't hurry them. And they will get used to the term pediatrics and pediatrist just as they have gotten used to the term ovariotomy and ovariotomist and anesthesia and anesthetist, although it may be as new to them at first as Sim's position or as intubation. In the meantime our English friends will continue to be frightened at the name specialty and specialist although a few of them will continue to become expert in special lines, while the general practitioner will not be as good an "all around" practitioner as his American confrere. Notwithstanding his dread of specializing, Mr. Owen himself has written, as you all know, an admirable book on the surgical diseases of children, and other lectures

and essays as "special" as anything we propose to do to-day. Mr. Owen has mistaken my position in this matter, for he says "you will not like my reply," and lest others may, let me state it. I am just as anxious as he that the field of diseases of children be not "tilled and cultivated by those who cannot and will not look over the hedge." And while I do not think there would be as much danger of a "cramping" influence in confining oneself to this branch as there would in some other departments (because of the breadth and variety in the field), it is infinitely desirable for the sake of all concerned that the special knowledge of this as of any other department be built upon a broad and deep foundation of general knowledge and experience, and keep its due proportions in comparison with the other parts of the structure. When this is done there is no danger of cramping.

I am opposed to the making of specialists in college; and always take in hand seriously the undergraduate who expresses his intention of paying particular attention to a certain branch with a view to making it a specialty when he shall have graduated. It is this kind of specialists who as much as the advertising quack have brought the very word into disrepute. I tell my young friend that it will be time enough when he has thoroughly grounded himself in the general principles and practice of his profession, and had ten or fifteen years of experience, to think of devoting his time in great part to some one line more than others. would not discourage any young practitioner from endeavoring to increase his knowledge and perfect his skill in certain particular lines or line according as he may have talent, taste or opportunity to study in that direction, for the field has become too wide for one to become expert in everything; and with quaint old Norris "I think a little plot of ground thick sown is better than a great field, which, for the most part of it lies fallow." If bye and bye a man becomes wise or skillful beyond his fellows in a certain line of work, and they keep him so busy therein that he has no time for anything else, I can see no objection to his doing that work, whether he is called a specialist, or whether he is called an expert in that line. And if all specialists were made in this way there would be no cause for complaint from anybody.



In regard to pediatrics (whether it is practicable or desirable depends upon the way in which it is done) it is probable, that in all large centers of population certain doctors will become known as particularly expert in diseases of children, and whether they are called pediatrists or specialists matters little—they will be called frequently in consultations, and their practice will be largely, perhaps in some instances entirely, among children.

In regard to the progress that is likely to be made in the near future, I cannot agree with those who expect pediatrics to do no more than keep pace with the march of general, medicine and surgery. The progress it has made in the past twenty years, the degree to which it has been differentiated from the other branches and separated even from those which were until recently associated with it (obstetrics and gynecology), the number and value of recent additions to its literature, the promptness with which not only every discovery in general medicine and surgery and all the specialties is tried and if practicable modified to suit the cases of children, and the zeal with which earnest workers are pursuing special investigations in this branch, all tell me that pediatrics is destined to make a rapid advance in the near future. I believe it will lead out perceptibly and distinctly in the next decade like gynecology has in the past decade though not to the same degree. Heaven forbid that it should be "boomed" to that extent. It became at one time very little short of disgusting when every Tom, Dick and Harry, I beg their pardon, every Thomas, Richard and Henry in the country seemed possessed with the idea that nothing less than God's final and finest piece of handiwork was good enough for him to practice upon. I do not think pediatrics will ever be so overdone. It has not the same attractions. But it has attractions for all of us here present, and we have a good programme before us. I have kept you from it too long already. I thank you for your patience.

THE REFLEXES AS DIFFERENTIAL DIAGNOS-TICS IN ORGANIC AND FUNCTIONAL NERVE DISEASE.

CHAS. J. ALDRICH, M.D.

As phenomena over which the patient has no control and little ability to imitate, the reflexes are valuable tests in neurology.

The questions, involved in the differential diagnosis of organic from functional disease, are at once puzzling and interesting.

The practitioner who has experienced the peculiar difficulties presented by these cases must have keenly felt our lack of exact data from which to draw the conclusions on which to base the treatment that is either to hurt or heal his patient.

In this short article it is not intended to deal with but a small part of the great subject hinted at in the above title.

The day has not yet dawned that sheds enough light upon the misty borderland that divides the functional and organic nerve affections, to permit of a dogmatic discussion of the so-called reflexes. Yet, we may with profit, consider the valuable aid conferred by a correct and accurate knowledge of the muscle jerks and skin reflexes as differentials between functional and organic affections of the nervous system.

While urging the value of careful analysis of these phenomena it is not my desire to distract your attention from the great value of distortion of the visual fields for both form and color, hystero-genic zones, anesthetic patches and other well known finger posts which kind providence has erected to guide us from the devious and deceptive paths of that maze of symptomatology—hysteria.

During a recent attendance at the National Hospital for Paralyzece and Epileptics, Queens Square, London, thanks to the courtesy of the Staff and House Physicians, the writer enjoyed exceptional opportunities to study and compare these phenomena. And for what little merit the reader may discover in this short article he owes his thanks to the guiding courtesy and suggestions of these able gentlemen.

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All great medical centres have a tendency to specialize, and like individuals prone to the riding of hobbies and offtimes keeping in the same rut which their hobby peregrinations have worn. If London neurology has one of these specialties besides cerebral localization it is reflexes, and like the former I believe it has led to great results. In no place in the world has the study of the reflexes been brought to such a science as in London. And in the competent hands of the men in the world renowned hospital at Queen's Square, it becomes a pillar of light in a wilderness of darkness.

This tendency of medical centers to specialize is a great feature of medical study. The marvelous results attained by Ferrier, Horsley, Beavor and others, in cerebral localization has turned toward London the eyes of the world interested in this very practical but hitherto obscure subject.

The splendid achievements of the French School in elucidating the moot-points in those obscure cases which lie along the ill defined borderland of functional and organic nerve disease shines with a lustre radiating from the great luminary Charcot. Such examples are easily multiplied.

The character of the reflexes is far easier to demonstrate than describe. We will instance the knee jerk of an hysterical paraplegia. It is excessive. It does not end with the spasmodic contraction of the rectus but may produce a prolonged trepidation in the muscle which in some cases is very like a thigh clonus.

It is often communicated to the muscle of the opposite side and even may cause one or both arms to fly up. Frequently, in fact, it will set in motion various groups of muscles. The sensation is often one of shock to the system and one which patients seem to dislike very much.

On the other hand, the organic + knee jerk may be soexcessive as to produce an active thigh clonus and yet is rarely disagreeable in the sensations which it produces, in fact, differing in no way from the sensations produced by a like blow about the knee and a corresponding movement of muscles.

Some care is needed to avoid confusing the hysterical with the neurasthenic knee jerk. Both produce disagreeable

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sensations; are exaggerated, and produce local and general trepidations.

The presence or absence of the plantar reflex will put us right. This reflex is all most universally absent in hysteria and as certainly present in neurasthenia. Hence we may expect a case of increased "myotatic" irritability due to hysteria to have loss of the plantar reflex—it being retained in neurasthenia.

The increase of knee jerks due to organic disease, may be in great excess without producing any unpleasant sensations and is certain to have an active plantar reflex.

Gowers says, that for one case of error, due to a true ankle clonus being thought to be organic in origin when it was really functional, twenty cases of error have arisen in consequence of the clonus of organic disease being disregarded, and its significance underrated.

The functional character of the spurious ankle clonus is still more marked than the functional knee jerk. The ankle clonus of organic disease possesses qualities of rythmic discharge both as regards time and force which in the functional are entirely lacking.

The spurious clonus conveys to the hand of the examiner a sense of voluntary motion without that nicety of automatic extension and retraction which is so characteristic of the true ankle clonus. The constancy of our ability to demonstrate the true clonus is also in marked contrast with the variable presence of its spurious imitator.

This point was forcibly impressed upon me recently while examining a patient in the wards of the National Hospital. I got a very perfect imitation of an organic ankle clonus which appeared only when the neurotic voluntarily contracted the calf muscles. On relaxation of this group it disappeared entirely. Further examination proved conclusively the case to be one of functional paraplegia. Here as in functional + knee jerks the presence or absence of the plantar reflex affords much light.

It would seem correct to infer that if the reflex centres were as explosive as a + knee jerk and an ankle clonus would indicate, that a plantar reflex would be present and active. And so it is in organic disease. But as has been

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stated it is absent. In this connection it is to be remembered that ankle clonus is sometimes present in neurasthenia but partakes of the general characteristics of the hysterical phenomenon.

There are other distinctive peculiarities of the neurasthenic ankle clonus. The excursions of the foot in its to and fro movements have all the irregularity of the hysterical clonus plus a marked tendency to become exhausted and so disappear until rest has restored the muscular excitability. The presence of the plantar reflex in neurasthenia is positive.

It is always well to inquire into the reflexes of the higher segments of the cerce and correct or strengthen the conclusions which our studies have so far brought us. The jaw jerk is apparently never simulated by hysteria. Its presence reveals a degree of spasticity and "myotatic" excitability beyond the reach of a functional neurosis. It is a positive indication of organic change.

The wrist and elbow jerks are, if active, co-operative of organic changes if other findings have borne our opinions in that direction.

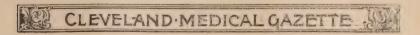
It should be remembered however that it is not only possible but not of infrequent occurrence, to find both increased in functional neuroses. In writers cramp, particularly of the paralytic variety is very likely to show increased reflexes on the side of the paralysis.

This short study brings us to the following conclusions.

In hysterical disease general myotatic irritability is increased while sensory irritability is decreased. Thus in hysterics we commonly get an increased knee jerk perhaps a pseudo thigh clonus and often a functional ankle clonus but find the plantar phenomenon absent.

Adopting this view, two apparently contradictory symptoms become reconciled.

The neurasthenic while suffering from an increase of myotatic excitability, still has no such excess as finds expression in an ankle clonus and no loss but usually an increase of cutaneous sensibility which leads him to show a very fine plantar reflex. He is also without the like emotions of the hysterical that leads to extraordinary and unconscious simulation.



Correspondence.

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The ankle clonus, + knee jerk, with preservation of the plantar reflex is indubitable evidence of an organic lesion and when the jaw jerk is present with increased elbow and wrist jerks in evidence there is no longer question.

Observation leads me to express the belief that hysterical increase of the muscle jerks are not reinforced but rather inhibited by the method known as reinforcement.

Whether reinforcement will increase the muscle jerks in all cases of neurasthenia is a question which I hope to follow to a more definite conclusion than I am now able to advance.



EL ORO, MEXICO, July 16, 1896.

Editor Cleveland Medical Gazette:

Practicing medicine in this country is a hard task, but it is a splendid place to learn to curb one's temper. Almost invariably the patients do just about one-quarter you tell them; though, perhaps, it is not right for me to complain because I am not able to speak the language very fluently as yet, having been at it only a little over a month. It is always unsatisfactory to do business through an interpreter. However, one soon falls into the "manana" (to-morrow) condition of the natives, common as well to the Americans, so he doesn't care very much whether the patients do well or not, if they fail to follow directions. This habit is the protector of health in this country. If one should be very ambitious and exert himself very much, it would prove rather disastrous. I know that it is impossible to work as hard as at home. I don't know whether or not it is the altitude alone that does it. The climate is most delightful, though it soars up to almost 100° in the shade at times. But one doesn't notice it so very much on account of the dryness of the atmosphere and there being almost always a breeze We don't notice the breeze sometimes in the valley, but go up the mountains and all you care for is there. You see it is about seven thousand feet above sea there. You see it is about seven thousand feet above sea level. If you wish to experience delightful evenings, nights



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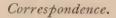


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and mornings, come here. The skies at night are gorgeous. Once in a while I am compelled to go over the mountains at midnight. Nothing could be more delightful than such a ride, if it were deprived of its element of danger, although that adds a little excitement to it. So on account of the climate being so provokingly healthy and the natural lassitude of the people, disease is not very prevalent, except as the result of bad sanitary conditions. One meets with very few cases of nervous prostration from over-work, the nervous cases resulting from excessive drinking or poor food. Drink is one of the reigning evils. Tequila, the alcohol for it being obtained from the pulque, is mostly used in this region: also preparations made from barley or corn. The pulgue made from the Maguey plant is consumed a little farther south. The Mexicans seem to have stomachs made from leather judging from the way they endure excessive drinking, smoking (both men and women indulging in both), and the amount of chile they use. This chile is similar to our pepper. I know that it is awfully hot stuff and must be very injurious to the mucous membrane of the stomach. If I ate one-tenth as much at a time as a native would, it would take the roof off my mouth. I shall never forget my first experience; it was while we were staging and we stopped to change mules and get dinner. It was an entirely Mexican establishment except the American beer which gets even way down here. Well, I began eating,-there were two Americans, one a Dr. Norris of New York, and two Mexicans traveling with me,-and Dr. Norris asked me to try the chile pronouncing it very good (he has been in this country before), the Mexicans also said the same. I went at it very charily. It is a suspicious looking article the way they prepare it. I ate and it seemed that there might be some tr. of cantharides on the roof of my mouth. They remarked that is nothing and keep right on, might just as well begin now as later. The Mexicans kept on laughing. Nothing daunted, I kept bravely on, determined not to give up before them. But I didn't care for any more chile for one while. A Mexican dinner is enjoyable nevertheless for a change. You must first become accustomed to their food, their manner of cooking it and the company with which you might be compelled to dine. One Sunday I dined with a well-to-do Mexican. He sat on one side of the table, my friend at one end, I opposite the host. The old gentleman sat on a bench which is always along one side of the table next to the wall. On one side of him was one cat, on the other side three cats, on the table one. On each side of me several dogs, under the table a few more. Chickens were





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running in and out. You must keep in mind that everything is very open and the Mexicans being very fond of animals allow them to run at perfect liberty. But mine host drew the line at pigs. They were not allowed to enter, he being too high toned. I have eaten in places where pigs were just as liable as not to enter and run around your legs. In spite of this, having become inured to it, the meal is enjoyable. To enter some of the houses you would first pass through the place where the pigs are kept. These latter are the scavengers of villages and small towns. The water is too scarce to carry off the sewage; so offal of any kind is deposited where inclination drives, and pigs clean up. in cities of ten to twenty thousand there is scarcely any sewerage system to speak of. The other day a cow was killed in front of our place by a Mexican. In about an hour there wasn't a trace of it left except the stain where the blood had soaked into the ground and which they could not possibly get. Everything of the animal, inside and out, was sold except the contents of the stomach, which the pigs took care Not a vestige left. The meat has to be eaten quite fresh when the weather is very hot. But when not so hot, the atmosphere being so dry, meat can be kept for some time, when hung up in a draft and protected from the flies. But the natives don't care very much what they eat. So that when a disease like typhoid attacks them, it goes very hard with them. Pneumonia is fatal with a few exceptions. I believe the altitude is to blame for this fatality in pneu-The variety of diseases is not very great. Typhoid, a peculiar form of malaria along the river, pneumonia, nasal difficulties and stomatitis are the most common. If the sanitary conditions were better, disease would be very rare In a town of ten thousand about a hundred miles from here, typhoid has been raging and proved very fatal this is the end of the dry season and its drainage is very poor. The manner in which the poorer classes live, it is no wonder they get sick once in awhile. They will sleep on the ground without taking off their clothes from one night to another. No stoves in the houses. They just build the fire on the floor and allow the smoke to find an exit, which is generally through the door, often the only opening into their one-roomed abodes. Even the richer ones haven't glass windows to speak of. We Americans in camp are about the only ones that enjoy that luxury.

I haven't entered into their customs at any length, but they are interesting as well as amusing in a sense, the little

I have seen of them so far.

Sincerely yours,



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POSITIONS ON THE HOUSE STAFFS IN THE HOSPITALS OF CLEVELAND.

It may be of interest to many readers, certainly to those looking to Cleveland as a center of medical education, to know something concerning the hospital positions open to young men in this city. The nine hospitals now in operation in Cleveland aggregate 1,667 beds. This includes the State Hospital, which has one thousand, and

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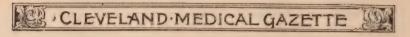
omits Lakeside, which is not just at present in operation. However Lakeside is expected to open in the new building about Jan. '97, and to have accommodations for 250 patients. This will make a total of 1,917 beds. The capacity of the hospitals besides those mentioned is stated as follows:

German 25, St. Vincent 80, St. Alexis 108, St. Clair Street 30, The General 73, St. John's 56, Huron Street 120. These hospitals take care of a great many patients during the year, the number going up into the thousands, and require not only visiting and consulting staffs for their proper operation, but house staffs as well. Altogether there are positions in the hospitals of Cleveland for 26 men, divided as follows: State Hospital 4, Lakeside 4, St. Vincent 4, St. Alexis 2, St. Clair Street 1, St. John's 1, General 4, Huron Street 2. The German Hospital has as yet no house physician. The term of service upon the house staff is in most instances one year, the exceptions being the City Hospital, in which it is 16 months, and the General, in which it is 18 months.

There is no salary paid to any member of the house staff excepting at the State Hospital, but the senior member of the house staff, or, (where there are more than one on the staff) the two senior members reside in the hospital, having room, board and laundry free. In the State Hospital all the members of the house staff are residents. Nearly every position is filled by competitive examination, the exceptions being St. Alexis Hospital and three assistants' places in the State Hospital, which are appointive.

The examinations are usually made by the hospital staff or a committee of the staff, and graduates of Cleveland colleges are eligible. In some instances senior students are eligible for the assistants' places on a house staff, provided they are to graduate before they are advanced to the more responsible positions.

The examinations are usually made in February or March, about the close of the winter session of the colleges. All of the hospitals select their house staffs from the regular ranks only, with the exception of the Huron Street Hospital, which is Homeopathic only, and the City Hospital, which is open to male graduates of the medical colleges of Cleveland, irrespective of school.



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Most of the hospitals give a diploma or certificate at the end of the term of service upon the house staff.

A position upon the house staff of a well conducted hospital, having a competent staff of visiting physicians, surgeons and specialists, affords to the ambitious young doctor most excellent opportunities for experience, study and advancement. Beginning as externe or assistant, he at first has less responsible, but still necessary functions to perform, and is in a few months advanced to the most important duties which he would have to encounter in an extensive private practice. While he is under the instruction of men of knowledge and experience and guided by the accumulated wisdom of established custom in hospital management, he learns to bear grave responsibilities, employ his own knowledge and exercise his own judgment. There is no prize more valuable to the young doctor eager to become accomplished in the work of his profession than a term of service in a good hospital. More than a score of such prizes are annually distributed among the graduates of Cleveland colleges, who are willing to work for them.

There also is or was, another hospital or hospitals, which has or have gotten into a puzzling state of uncertainty about its or their identity. We cannot presume to decide who is right or wrong in the matter; but if the courts or committees of arbitration ever succeed in deciding whether there are two right sides to the question and two hospitals, or only one, and if so, which one; and if the hospital or hospitals then proceed to enjoy the privilege of laborious existence after the manner of other hospitals, we shall be glad to publish some information concerning it or them—as aforesaid.

THE CERTIFICATES OF REGISTRATION.

The Certificates of Registration are being sent to the physicians of the State by express. The express charge is twenty-five cents on each certificate. This little matter is occasioning more than a little grumbling on the part of

Periscope.

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many doctors; and not without some show of reason. The doctor says, I have paid five dollars to be registered and now another quarter is wanted. A quarter of a dollar is not very much, but to the whole profession it aggregates a good deal. For instance it will cost the six hundred doctors of Cleveland \$150.00 in express charges to receive their certificates, for which they have already paid \$3,000.00, nor will it be said that like the \$5.00 fee, it goes to support the Board. So far as known, this money does not go to the Board but to the Express Co. The certificates could have been sent by mail like the Pharmacy Certificates. Now the doctor will have to stamp an envelope and send a receipt for the certificate to the Board; and then within ten days take his certificate to the Probate office and pay another fifty cents to have it recorded. Registration is all very well as far as it goes, though that isn't very far; but it comes rather high.



THE EFFECT OF ETHER NARCOSIS ON THE BLOOD AND THE URINE.

George W. Crile, M. D.

A. von Lerber, in Inaug.—Diss., Basel 1896, reports his investigation in 101 patients, in whom blood analyses were made 1 to 2 times before operation, and 2 to 4 times after. The loss of blood in the operation was taken into account.

The quantity of hæmaglobin was observed in 98 cases; in 65 it remained unaltered by the narcosis; in 19 increased; in 14 diminished; in but two cases did the variation exceed 10%, and in these there was great loss of blood.

The author concludes that ether narcosis has no effect

upon the hæmaglobin of the red corpuscle.

In 101 cases, the number of red corpuscles were counted; 55 showed increase; 42 diminution, and 4 remained unaltered.

After the increase, the numbers soon diminished to the normal and *vice versa*. Ether narcosis then has no destructive effect on the corpuscle.



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The white corpuscles in 96 cases showed increase; in five, decrease; in three of the latter the diminution was due to relief of pathological leucocytosis before the operation, such as abscess formation, etc., which were relieved by the operation.

Ether seems to cause a marked leucocytosis, reaching its maximum several hours after the narcosis. The new leucocytes have all the characters of those normally circulating in the blood. The eosinophilin cells are not

increased.

Analysis of the urine before and after narcosis showed albumen in seven cases in which none existed before.

In the six cases showing albumen before narcosis, two showed increase after.

ISOLATED TRANSVERSE FRACTURES OF THE SACRUM.

Chipault, in (Med. Moderne 1896, No. 50,) points out that this fracture has received but slight notices in the text books. Gaudier divided them in two classes. 1. Those of the lower part. 2. Those of the upper part as high as the third segment.

The second variety is frequently complicated by injury of the adjacent nerve structures, causing paralysis of the

bladder, rectum and the legs.

The treatment has hitherto been symptomatic.

The author would cut down upon the fracture and wire the parts together. If it were not possible to obtain apposition, resect the bone.

In cases in which repair has taken place and there is

pain, he would operate to free the nerves.

Church gave relief by operation two years after the fracture.

Modern Treatment of Hypertrophy of the Prostate.

Vautrin, in (Ann. des Malad. des org. geinto-urin, 1896, No. 3) reported one case in which double castration was performed, one of ligation of vas deferens on both sides; and one of unilateral castration and ligature of the vas deferens on the other side.

In all the results were very satisfactory.



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The author recommends electrolysis in early stages, later, on the advent of retention of urine and its complications perineal section or cystotomy; but for cure of the hypertrophy double castration; or better still ligature of both vas deferentia.

FATAL FAT EMBOLISM DURING NARCOSIS IN BRISEMENT FORCE.

M. Sympius, while endeavoring to straighten a knee in extreme contracture in a woman 71 years old, lost his patient. He had used force gradually for a short time and the knee had partially yielded, when the patient suddenly died. Patient was under full chloroform anæsthesia at the instant of death.

The autopsy showed there had been produced a fracture at the knee; the muscles had undergone fatty degeneration, as had the tissues generally.

The fat embolism to which the death was assigned was

found in the lungs.

There are but three other cases reported in literature of death from embolism in brisement force.

DIPLOCOCCUS OF FRAENKEL CAUSING PURULENT CYSTITIS.

Bastianelli of Rome has found two cases of cystitis purulenta caused by Fraenkel's diplococcus. His microorganisms have been known in but one other instance to have caused like disease.

POST TYPHOID SUPPURATION IN AN OVARIAN CYST.

P. Sadeck, in (Muenchener Med. Wochenschrift, 1896, No. 21), reported a patient 32 years old, who seven weeks previously had had an attack of typhoid fever. Four weeks after the attack she had pain in abdomen, and was sent to hospital. A diagnosis of suppurating cyst was made. Operation done accordingly. Pathologic investigation showed a suppurating cyst, fluid of chocolate color, considerable quantities of fibrin and pus on cyst walls, and finally, culture plates showed a pure culture of bacillus typhosis.



BY L. B. TUCKERMAN, M. D.

The "snakes" which so annoy and terrify patients in alcoholic delirium have been ordinarily regarded as a pure hallucination due to psychic derangement, but Dr. A. EDWARD DAVIS of New York city has been making examinations of the fundus of the eye in a number of cases of acute alcoholic delirium,—no easy task by the way—and thinks he has discovered a physical basis for that hallucination. He notices that in these cases the vessels of the fundus are large and pulsating due to alcoholic vaso-motor paresis. Calling to mind the fact that the visual hallucinations of alcoholism are always in motion, coupled with the anatomical fact that the vessels of the retina lie in its anterior layers, and in front of the perceptive layer—the layer of rods and cones which forms the posterior layer of the retina, he says "Ordinarily the retinal vessels are so small and semi-transparent that they are not projected into the field of vision and made visible. But when, as occurs in delirium tremens, the vessels become passively dilated, tortuous, pulsating, and filled with dark blood, dark enough, as I believe, to be projected indistinctly into the field of vision and to be seen, they appear as 'snakes'. The tortuosity of the vessels would naturally resemble in shape a snake, and the constant motion of the blood through them would give the motion always present in such cases. With a befuddled brain, these objects could be easily transformed into any other objects, and distorted into endless forms. The psychical condition of the patient may play some part in the formation of the hallucinations of delirium tremens, but I believe the true and main cause lies in the circulatory condition of the fundus of the eye." His reasoning is plausible as anyone who has seen the tortuous shadow of his retinal vessels apparently projected on the wall of the room will readily appreciate. The experiment is easy, if you only pay attention to the phenomenon, as you open your eyes suddenly after keeping them closed for quite a while as in sleep. If the room be light, and the wall white or of a light color, the shadow cast by the large retinal vessels on the layer of rods and cones will appear as dark bands on the wall, tortuous, often branched, and moving with the motion of the eye. In normal conditions the impression fades so quickly, owing to the rapidly diminishing sensitiveness of the unshaded portion of the retina under the influence of the strong light that most

¹ Quarterly Jour. of Inebriety, Apr. '96.

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people fail to notice it, or if they do, they fail to give it a second thought. But if, as Dr. Davis, believes to be true, the congestion of the vessels, and the supersensitive state of the fundus, renders what is normally only an instantaneous impression on opening the eyes, a continuous impression—a tortuous shadow moving in every direction with the motion of the eye—it is easy to believe that a befuddled brain would very naturally distort them into "snakes."

The enlarged lymphatic glands of children suffering from scrofulous adenites, cicatricial contractures, and in operable tumors are being treated seemingly with benefit by

hypodermic injections of thiosinamin, or allyesulphocarbamide, which is the crystalline substance produced by the reaction between oil of black mustard, absolute alcohol, and aqua ammoniæ. It is a urea with the oxygen replaced by sulphur and one hydrogen atom by C3 H3, that is, CO< NH2 becomes CS< NHC3 H. It is soluble in water, alcohol and ether, but decomposes in aqueous solutions, and hence is best used in alcoholic solution, from $2\frac{1}{2}$ to 15 per cent. The maximum dose is three grains, injected twice a week beneath the skin in the intra-scapular region. No febrile reaction follows its injection and it is rapidly absorbed, a garlicky taste being noticed by the patient within a few minutes. The injection is not followed by any febrile reaction, but prompt duresis is usually noticed, the daily amount of urine being often augmented by from two to five hundred cubic centimeters. There are no renal symptoms, nor do albumen or other pathological products appear, and the diuresis ceases after a number of injections. The drug has the effect of first diminishing the number of leucocytes to about one-third of their usual number, but they multiply rapidly, again reaching normal, or even beyond normal in the course of a few hours, the leucocytosis persisting often for forty-eight hours after the injection. While the number of red corpuscles does not seem to be appreciably affected, the amount of hemoglobin is regularly increased as well as the number of multinuclear leucocytes. Patients gain in appetite and weight. In its action on the blood thiosinamine seems akin to that of hemialbumose, peptone, pepsin, nuclein, pyocyanin, tuberculin, curare, urea, uric acid, and sodium urate, i. e., it occasions immediate leucocytolysis followed by leucocytosis. In pathological conditions its effect is that of a powerful absorptive, acting probably by increasing the activity of the lymphatics. It was first used by HEBRA in lupus, but proved inferior to other methods of treatment, but

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corneal opacities rapidly disappear under its use, as well as keloid growths, and adhesions and contractures due to scar tissue. Dr. Sinclair Tousey, of New York City,2 has been giving it an extensive trial in the classes of cases above referred to, and with flattering results. M. BEAS, of Paris, using it in scrofulous children, three drops of a 21/2 per cent. solution being the dose, noted that in all cases the appetite and general strength seemed to increase, and in about half the cases the glandular swelling either markedly decreased or wholly disappeared. It may be that thiosinamine is to prove an invaluable addition to our armamentarium. A promptly diuretic and tonic with equal promptness is a drug certainly a desideratum and is likely to find a wide range of usefulness-for instance, in dealing with these water-logged cases where the stomach will not work. A drug which will act like tuberculin, in the amelioration of phthisis, as was noted by Hebra and seems to have the power, like nuclein, of mitigating the symptoms and checking the growth of neoplasms, and which has the further advantage of being of definite chemical composition, and which any competent pharmacist can prepare, ought certainly to be given the preference in the way of trial over those nostrums whose name is legion, concocted, we know not how, and containing we know not what.

- 2 New York Med. Jour., May 2, '96.
- 3 Therap. Gazette, Nov. '95.
- 4 New York Med. Jour., loc. cit.



- Dr. W. H. Humiston is spending his vacation on the St. Lawrence.
- Dr. G. W. Crile is recuperating for a brief period at Saegertown.
- Dr. A. F. Spurney contemplates spending the coming winter in Europe. He will start about Sept. 20.
- Dr. C. J. Aldrich has removed from Central avenue to Prospect street, corner of Sterling avenue.
- Dr. J. G. Stucky, Walnut Creek, O., writes, "The GAZETTE is a welcome visitor at my desk."

Dr. D. H. Nusbaum, Bloomington, Ill., writes, "I have taken the GAZETTE since No. 1, (nearly eleven years) but, sorry to say, I have not preserved them."

Dr. Charles Goodman has been making a visit to his old home in Cleveland. He will shortly return to his duties as Senior Surgeon at Mt. Sinai Hospital, New York.

The Cleveland College of Physicians and Surgeons (formerly the Med. Dept. of the University of Wooster) will open its first winter course under the new name, on Sept. 16.

Dr. Thos. Chas. Martin has resigned from the Professorship of Rectal and Genito-urinary Surgery in the Cleveland Medical College.

Easily Rectified.—"Marie, I thought your physician told you that you were not strong enough to ride a wheel?" "Yes, but then I went to another doctor."—Chicago Record.

The Buffalo Medical Journal, by way of keeping up with the procession, had its June edition gotten up entirely by women. It's a very good number—but one would have expected the women's edition fad to have passed by Buffalo long ago.

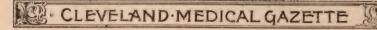
- Dr. I. N. Love having recently resigned from the faculty of Marion-Sims College has been tendered some very appreciative resolutions, signed by a committee of the faculty composed of Drs. B. M. Hypes, R. C. Akkinson, C. Barck, and the secretary, Dr. H. W. Loeb.
- Dr. B. W. Holliday sustained a dislocation of his right shoulder, by a fall, while making professional calls with a bicycle. This occurred on the 17th inst. He got the dislocation reduced *enroute*, finished his round, and attended to business for some days after, when rheumatic eomplications compelled him to remain in bed.

One Cow's Milk.—"You must let the baby have one cow's milk to drink every day," said the doctor. "Very well, if you say so, doctor," said the perplexed young mother, "but I really don't see how he is going to hold it all."—Indianapolis Journal.

What is to become of the baby who is advised to take

the milk from the whole herd rather than one cow?

A Revised Edition of Gray's Anatomy is announced to appear soon, by Lea Brothers and Company. Much of it has been rewritten, enlarging it by seventy-five pages, and one hundred and thirty-five new engravings have been



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added. Distinctive colors will be used in the engravings. This will be their fourteenth edition of "Gray," which for the last forty years has been "the foremost of all medical text books."

The Limitation of Woman as a Doctor is illustrated by an anecdote which appeared in the Canadian Med. Review. The late Doctor Van Bibbert, of Baltimore, remarked that he was awakened late one night by a ringing at his bell and received a call to attend a lady in labor. He objected on the ground that he did not attend the family, and suggested that the call go for his own family physician, when to his astonishment he was informed that had already been done, and she was about to be confined herself.

Dirty Thermometers.—How frequently we see physicians, says Medical Age, take the temperature of their patients, regardless of existing disease, wipe the instrument with their handkerchief—an article most likely to be full of germs—or a towel, or even use the corner of a sheet, then carefully place it away in a case holding a small amount of absorbent cotton to keep it from breaking, which latter is specially apt to preserve germs ready to be conveyed to the next unfortunate upon whom the thermometer may be used.

The American Academy of Railway Surgeons will hold its Third Annual Meeting in Chicago, at the Auditorium, on Wednesday, Thursday and Friday, Sept. 23, 24 and 25, 1896. A six page program (too lengthy for our available space) has been issued. Those interested can procure information from the President, Dr. John E. Owens, of Chicago, Ill., or the Secretary, Dr Webb J. Kelly, of Galion, O. Hotel accommodations will be arranged by Dr. A. D. Bevan, Chicago, and Dr. W. J. Galbraith, Omaha, will attend to the transportation of members.

A Central Medical Hall in Manchester.—According to a correspondent of the Therapeutic Gazette, a movement is on foot to institute a Central Medical Hall in Manchester which might be used by the various medical societies and form a centre for the professional life in this district, not only in its scientific, but also in its ethical and social aspects. The chief obstacle at present is the great expense attending the provision of a suitable building in the central part of the city, where the value of land is very high. It is to be hoped that this difficulty in the way of the realization of a most desirable scheme will be overcome in the near future.

Dr. A. J. C. Skene of Brooklyn, is said to be engaged in writing another book. Gossip is not able to give the title



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nor even hint at the nature of the work further than that it is in the field of fiction.

Possibly it will deal with the psycho-physical causes that have evolved the new woman, or something of that kind. We shall wait with interest and try not to expect too much. Not all the doctors who have tried have written as good stories as Holmes or Conan Doyle. Some readers even think that if Weir Mitchel, had stopped with the subjects of nerves and snakes he would have been just as famous. But we have never known a good doctor to write or tell a very poor or pointless story.

The Position of Dr. H. C. Eyman as Superintendent of the Cleveland State Hospital has been claimed by the Tippecanoe Club as due to some member of the Republican Party as lawful spoil. We have before this expressed our views clearly as opposed to allowing politics to interfere in this or any similar office. The test of the candidate for appointment should be solely one of merit and efficiency. In this instance there is no question in regard to the efficiency of the present incumbent, and no fault is found whatever, which only makes the principle upon which the club acted appear the more reprehensible. It would be interesting to develop just how much the action has been incited by the candidate who wants Dr. Eyman's place, and how he makes his professional and political ethics agree. However, the attack seems to have had no effect upon the Governor, and we hope his good judgment will sustain the efficient Superintendent in his position as long as he is efficient.

Edison's Roentgen Ray Lamp.—The apparatus used by Edison for the production of Roentgen rays is very simple, as described by the American Electrician. It consists of a large induction coil, an interrupter wheel run by the motor, whereby a continuous current is changed into an interrupted current, and the primary of the coil fed with the latter. The secondary of the coil current supplies current to the new fluorescent lamp, which consists of an ordinary vacuum tube such as used in the generation of Roentgen rays, but with the interior walls covered with a fluorescent mineral fused into the glass. The light given forth resembles daylight in its character, and though the small bulb only emits an illumination equivalent to one or two candle power, yet this is the greatest intensity ever obtained in vacuum tube lighting. By the methods of measurement used, only six-tenths of a watt was required to illuminate the tube, or at the rate of about ten watts per sixteen candle power-only twenty per



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cent. of the amount required by an efficient incandescent lamp to produce the same illumination.

Medical Societies that will meet in September. American Assoc'n of Obstetricians and Gynecologists. Richmond, Va., September 22, 23 and 24, 1896. Sec., William Warren Potter, M. D., Buffalo, N. Y. American Academy of Railway Surgeons. Chicago, Ill., September 25, 26 and 27, 1896. Sec., W. J. Kelly, M. D., Galion, Ohio. American Dermatological Association. The Springs of Virginia, September 8, 1896. Sec., Charles W. Allen, M. D., New York City. American Electro-Therapeutic Association. Boston, September, 1896. Sec. Emil Heuel, M. D., New York City. Idaho State Medical Society. Boise City, September, 1896. Sec. and Treas., W. D. Springer, M. D., Boise, Idaho. Medical Society of the Missouri Valley. Council Bluffs, Ia., September 17, 1896. Sec., Donald Macrae, Jr., M. D., Council Bluffs, Ia. Medical Society of Virginia. Danville, Va., September, 1896. Corresponding Sec., J. F. Winn, M. D., Richmond, Va.

Henry Ward Beecher on Seasickness.—Go on board with a full stomach of plain but nourishing food; do not have anything on your stomach when you embark.

Keep on deck. Do not go out of your state-room, but

lie quietly on your back.

Take champagne or claret, or brandy, or whisky, or gruel, or oatmeal porridge, or bits of salt codfish scorched

upon living coals.

Then have an iceberg along your spine; a light belt should be worn below the waist; use homœopathic remedies freely; it makes little difference of what kind; blue pills and Congress water are as good as anything.

But the best of all things is to kick the doctor out of your state-room, lie still in your berth, and wait for land. This

is a sure cure.

There are many alleviations of this condition—the smell of bilge-water, if on ship; the smell of grease, if on a steamer; the smell of dinner, if your state-room opens on the dining-saloon; the rattle of knives and the jolly roar of merry men at their abhorrent meals. For variety, a friend visits you and narrates his experience and recommends new torments.

Treatment of Hysterical Mutism by Etherization. Gioffredi (Gazzetta degli Ospitali, October 1, 1895), British Medical Journal on the assumption that hysterical mutism is due to an exalted condition of the inhibitory powers of the brain



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over the speech centres—an idea suggested by the fact that certain hysterical mutes were noticed to speak during sleep,-was led to believe that an agent (for example, anesthetics) which paralyzed this power would prove a cure for the disease. Ether was the anesthetic selected, and it proved eminently satisfactory in the two cases in which the author tried it. These were young women with marked hysterical symptoms (anuria, anesthesia, vomiting, contracted visual field, etc.), suffering from mutism, which resisted treatment by galvanism, suggestion, massage, drugs, etc. Before anesthetizing the patient no mention was made of the object of the treatment, so as to avoid any suspicion of suggestion. In each case, as soon as the stage of excitement began, the patient spoke. Etherization was then discontinued, and the patient aroused by mechanical and other means. In the first case the mutism, which was completely cured by the anesthetic, returned nine months after, and was again cured by the administration of ether. In the second case, cure took place with one administration, and no return has occurred.

On the fourteenth of May, says St. Clair Thomson in a letter from London to the Therap. Gazette, exactly a hundred years had elapsed since Edward Jenner performed his first vaccination on the person of John Phipps, then eight years old. We have been reading of how this great centenary has been celebrated in the United States, in Germany, and in Russia. In Berlin a banquet, presided over by Professor Virchow, amongst other festivals, marked the event. We read that in the States the meetings of the American Medical Association and the American Public Health Association have given special prominence to the celebration. Here the event has been passed over in almost complete apathy. Of course the government took no notice; we are only too proud of our emancipation from our grandmother, the State. But our Royal Colleges and Universities, who are not so backward in welcoming foreign celebrities, appeared to have forgotten that there was ever such an individual as Jenner; and indeed many of the profession would doubtless have never heard of the centenary had not The Practitioner come out in a special "Vaccination Number." This latter possibly appealed to us as a practical people, because it placed in the hands of all its readers the weapons of fact and argument wherewith to meet and overwhelm the faddists velept "anti-vaccinators." Still, perhaps the most striking celebration is the outbreak of smallpox in the unvaccinated town of Gloucester; and then, is it not written that a prophet is not without honor save in his own country?



The Twenty-second Annual Meeting of the Mississippi Valley Medical Association will be held at St. Paul, Minn., Oct. 15, 16, 17 and 18, 1896. The meeting promises to be the largest in the history of the association. Many valuable papers will be presented, and more are solicited. Those desiring to present papers should send the title to Dr. H. W. Loeb, secretary, 3559 Olive St., St. Louis, Mo., or to the president, Dr. H. O. Walker, Detroit, Mich. In regard to transportation, write to Dr. X. C. Scott, Cleveland, who has that matter in hand.

The date of the meeting was changed from the 20th to the 15th of September, in order to arrange a trip to Yellowstone National Park. Through the courtesy of the management of the Northern Pacific Railway, the members of the association and their friends are promised unusual privileges to enable them to enjoy the wonders of that beautiful region. A special train will be made up to leave St. Paul on Friday, September 18th, immediately after the close of the meeting for a tour of Wonderland. The party will be transported to and through the Yellowstone Park, spending eight and one-half days west of St. Paul, five and one-half days being in the Park. The entire expense of this tour will be only \$78.00 per capita, which covers all necessary expense west of St. Paul, including rail transportation in both directions between St. Paul and Cinnabar, one double berth in Pullman sleeping car for the round trip, meals in dining cars en route, together with stage transportation and hotel accommodations

for the entire park tour.

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Having recently made the Yellowstone trip, the editor of the GAZETTE knows whereof he speaks, and earnestly recommends all of his friends and readers to make the trip. The park is a wonderful and beautiful region, unsurpassed in marvels in this or any other country, and no one will regret the trip. But for lack of time to take two vacations in one summer, we would go again. We speak from experience in promising all tourists the most kind and obliging treatment at the hands of the U. P. R. R., and of the Transportation Company in the Park. And also from experience in noting the fact that the charge for this trip is far and away below the usual rates. An itinerary of the trip may be had and arrangements be made through Dr. Chas. A. Wheaton, Chairman Committee of Arrangements, St. Paul, Minn. All who join the Yellowstone party should go provided with warm under and outer clothing, heavy footwear and soft headgear, both for ladies and gentlemen. Ordinary traveling trunks can be taken on the trip as far as Mammoth Hot Springs, where all heavy baggage will be stored while the party makes the tour in the park back to that point, during which only hand satchels or light baggage will be carried.



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Is Surgery a Cure for Cancer?—Dr. E. T. Davies (Liverpool Medico-Chirurgical Journal), January, 1896, (*Therap. Gazette*), quotes Dr. Byrne as follows, in his address before

the American Gynæcological Society:

"As the average period of life in cancer of the uterus, when not operated on, is not less than two years, and often more, suffering has not been lessened, but aggravated, and life has not been prolonged but shortened in the vast majority of all cases thus far subjected to vaginal hysterectomy.

The field for vaginal hysterectomy in its application to uterine cancer, if indeed there can be one at all, is an

extremely narrow one."

Davies states that hysterectomy is largely employed in London, but there are no available statistics; individual methods of performing partial or complete hysterectomy for cancer have been described, but the actual benefit obtained is only lightly illustrated by a few selected cases. Many distinguished physicians, he says, are advocates of surgery in uterine cancer, but their writings do not contain the facts which might support their advocacy. However, a few results of hysterectomy in malignant disease were reported last winter which may serve to replace the missing data.

In seven cases, the average duration of life after the operation was fourteen months, and in three of the author's cases, the patient died within three months of the operation.

In view of these facts, he says, the question arises: Is surgical interference a cure for cancer? The arguments advanced for the performance of hysterectomy are, he admits, of some force. The foul discharges and hemorrhages are for a variable period relieved, but there is a recurrence

of the disase very soon.

With regard to cancer of the breast, an altogether different set of facts and arguments is met with. Sir Benjamin Brodie, says Dr. Davies, came to the conclusion, after having removed five or six hundred cancerous breasts, that he would never remove another without first laying before the patient the objection, which his experience has shown him to exist, to that operation—namely, that the practice tended rather to shorten life than otherwise.

Sir James Paget, says the author, maintained that cancer was in the blood before it was in the breast; that we must look to constitutional and hereditary tendencies.

He spoke with very great assurance of the specific nature of cancer as being almost certainly due to a specific morbid material, micro-parasite or ptomaine, or to one or more of their products, and as being closely allied to

other micro-parasitic diseases, such as tetanus, tuberculosis,



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diphtheria, ague, actinomycosis, syphilis, and others; and he maintained, therefore, that the study of cancer and its treatment must needs be experimental, and once the morbid material was found, it could be dealt with in the same way as other specific diseases.

Dr. Davies quotes from many other well known writers on the subject and describes a number of operations which, he says, were no doubt perfectly justifiable, but he thinks that their inclusion in cancer statistics introduces confusion.

He very freely expresses his doubts of the value of surgery in cancer, and adds that they have only grown stronger as his opportunities for observation have increased.

The habit of thought, he says, should be changed in the

treatment of cancer.

More work from the pathologist and from the bacteriologist should be looked for, and less from the surgeon."

However, the results attained by Sir Benjamin Brodie in his day are not to be compared without qualification with the results of recent operations under improved methods. The same may be said of other "well known writers."

Pittsburgh Dental College has been organized as a department of Western University of Pennsylvania. The first regular session will begin about the 1st of October,

1896. The faculty is as follows:

J. G. Templeton, A. M., D. D. S., Dean, Professor of General Pathology, Materia Medica and Therapeutics; H. W. Arthur, D. D. S., Professor of Practice of Operative Dentistry and Technics; G. L. Simpson, D. D. S., Professor of Operative Dentistry, Orthodontia and Electro-Therapeutics; Walter H. Fundenberg, D. D. S., Professor of Prosthetic Dentistry and Crown and Bridge Work; Stewart L. McCurdy, A. M., M. D., Professor of Anatomy, and Oral Surgery. J. H. Beall, Sc. B. Ph. G., Professor of Chemistry, Metallurgy and Microscopy.

Lecturers and Demonstrators.—Theodore Diller, M. D., Lecturer on Physiology; George R. Shidle, D. D. S., Lecturer on Anesthetics; John S. Ashbrook, D. D. S., Lecturer on Special Dental Anatomy; J. F. Thompson, D. D. S., Demonstrator of Prosthetic Dentistry; O. L. Hertig, D. D. S., Demonstrator of Operative Dentistry;

Clement R. Jones, M. D., Demonstrator of Anatomy.

Clinical Instructors.—J. A. Libby, D. D. S.; Gale French, D. D. S.; H. H. Harrison, D. D. S.; T. H. Whiteside, D. D. S.; George Culbertson, D. D. S.; A. C. McAlpin, D. D. S.; G. W. Green, D. D. S.; W. E. Van Orsdel, D. D. S., H. L. Reinecke, D. D. S.; Wm. Van Antwerp, D. D. S., M. D.



The Second Pan-American Medical Congress.—The Committee on organization of the Second Pan American Medical Congress has elected Dr. Manuel Carmona v Valle, President, Dr. Rafael Lavista, Vice President, and Dr. Eduardo Liceaga, Secretary, and has announced November 16, 17, 18, 19, 1896, as the date of the meeting to be held in the City of Mexico.

The most cordial invitation is extended to the medical profession of the United States to attend and participate in

the meeting.

Titles of papers to be read should be sent at the earliest practicable date to Dr. Eduardo Liceago, Calle de San Andres num 4. Ciudad de Mexico D. F. Republica Mexicana.

The date selected is in the midst of the delightful midwinter season when the climate of Mexico is the most attractive to the northern visitor.

The occasion should stimulate the medical profession of the United States to a most cordial reciprocation of the generous patronage accorded the Washington meeting of the

Congress by our Mexican confreres.

It should be remembered that the United States is the largest, and in many regards the most important of the American countries and that as a consequence more is expected of it than of any other Occidental Nation. In no particular is this more true than in the maintenance of position in the realm of scientific medicine on the Western Hemisphere. It is, therefore, simply essential that in this Congress-the most important of all Medical Congresses. in its exclusive, vet broad, American significance—the best thought and the best work of the American profession shall be conspicuous in the proceedings.

The zeal and enthusiasm of the Mexican profession and the active interest of the Mexican Government are co-operating to make the second Pan-American Medical Congress

attractive, important and memorable.

Those who contemplate attending should send their names and addresses at as early a date as possible to Dr. Charles A. L. Reed, St. Leger Place, Cincinnati, that the Committee in Mexico may be advised of the probable attendance.

WILLIAM PEPPER.

ex-officio President. A. M. OWEN, A. VANDER VEER. CHARLES A. L. REED,

ex-officio Secretary.

INTERNATIONAL EXECUTIVE COMMITTEE FOR THE UNITED STATES.

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Medicine, Theology and Finance.—Medical men are often placed in a position of difficulty in regard to charges for professional services to clergymen. Many clergymen expect gratuitous attendance, and many doctors decline fees for services rendered to them unless they are in a good position.

position.

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Dealing with this question in a paper read before a local medical society, Dr. H. Campbell Black, of Glasgow, gave utterance to sentiments which will meet with the approval of most doctors. He said: My distinct impression is that poverty and suffering never appeal in vain to the worthy disciple of the old man of Cos; but I distinctly fail to see why, because a man is a clergyman, he is entitled to sponge, particularly on a young and poor practitioner of medicine. In my opinion—I submit it with all humility, especially in the city of Glasgow, the clergyman in receipt of over £1,000 per annum is grossly overpaid; and as a rule clergymen are the most pampered members of the community. Every now and again do I notice the presentation of £400 or £500 to some clergyman, especially one with his comfortable £1,000 per annum, to enable him to go and take a four or five months holiday, after a series of fierce encounters with Beelzebub, or of his having a pecuniary jubilee or semi-jubilee. When did you ever hear of a poor hard-wrought doctor ever receiving a £5 note from the public if run down in health? Of course, the money is ostensibly given to our friend, the parson, to strengthen the faith (and it anything can do this, money will) by a run to the "Holy Land."-Medical Times and Hospital Gazette.

The doctor of divinity receives a gratuity unasked and is sent to the Holy Land. The doctor of medicine does not get what is his due even after repeated dunning, and should he be too persistent in his demands, he is invited to go to the "Unholy Land," with all the sincerity that can be conveyed by strong language.—Ed. Am. Med-Surg. Bulletin.

The most aggravating feature in attending clergymen gratuitously is that the services are usually received with serene complacency, as quite a matter of course, and valued at about what is paid for them. If rewarded, it is with more patronage of the same profitable variety, while there never was known a quack or a nostrum lacking in testimonials from clergymen.

The Clinical Instinct.—If we are to judge, (Clinique—Pittsburgh Med. Rev.) from the innate propensity of mankind to "do something" for those who are ill, or who have been injured, we might conclude that everyone is endowed

Notes and Comments.

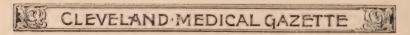
in some degree with the genius of a doctor. But the bias for prescribing is rooted in the same kindly motive that dispenses advice on all hands and preaches the gospel of interference unsought, without price. It is a spontaneous affair which is as natural as it is mischievous, often filling an indication that brings relief, but oftener failing of its

well-meant purpose.

"I don't see these colors in the sunset," said a lady to the great artist Turner. "I dare say not, madam, but don't you wish you could?" That there is a clinical as well as an artistic, a poetical, a musical, a social and a selfish instinct, will not be doubted. That its possession is a necessary part of the outfit, and its absence a sure sign of the unfitness of the physician or the surgeon for his responsible calling, goes without saying. And since all are not blessed with this gift, which is an inborn faculty for winnowing the clinical wheat intuitively it becomes a serious question whether some means should not be taken to verify the possession of this faculty by our students, both when they enter and leave the college. For, with all the clamor for a higher medical education, and with the increased scientific requirements so mercilessly put upon our pupils by the examinations fiend in these latter days, nothing is said of the test, the vital test of fitness on their part. And how shall one know until he has entered the field of practice and taken the chance of killing a few patients or of letting more of them die when their lives might have been saved, whether or not he is endowed with this special aptitude for discerning disease? Our contention is, that whatever else may be requisite, the possession of this peculiar instinct is essential to the thorough equipment of the physician that having it to begin with, he must labor for its full development and rely upon it as an equivalent, or a substitute for the talents that can only be acquired by study and application, and that, to make sure of this gift, as well as of the adequate learning, all examinations for the right to practice medicine and surgery should be more largely clinical, with real bedside tests, not with such suppositious cases as are often triumphed up in the courts, but with actual, living patients as a basis of inquiry.

Foreign Students in France. Some time ago one of the principal medical papers of Paris, (writes Dr. A. R. Turner to Therap. Gazette), noted the fact that of 2922 physicians practicing in Paris, 521 were foreigners. This combined with the crowding of the Faculty of Medicine of Paris, led the authorities here to refuse to receive any more foreign students into the Paris Medical School, requiring them to

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study at one of the Provincial faculties or schools. This measure, however, called forth protests from the French students, as not being severe enough. They claimed that they should be protected not only from overcrowding in Paris, but also from the future competition to which they would be exposed. They have likewise asserted that in many cases foreign students were allowed to enter the French faculties on presentation of diplomas which were by no means equivalent to the examinations in arts and sciences required in France.

The government accordingly has been considering the matter still further, and it is reported that before long the rules will be made so stringent that no foreigner will be allowed to study in France without having passed the classical and scientific examinations which are imposed upon the

French student.

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It is said, however, that a certain diploma will be granted foreigners not passing the preliminary examinations, with the important difference that it will not give the right to practice in France, but will merely show that the possessor has studied here and passed the medical examination.

It will be, in fact, "for exportation only."

Whatever may be the measures employed, it is probable that they will be rather rigidly applied.

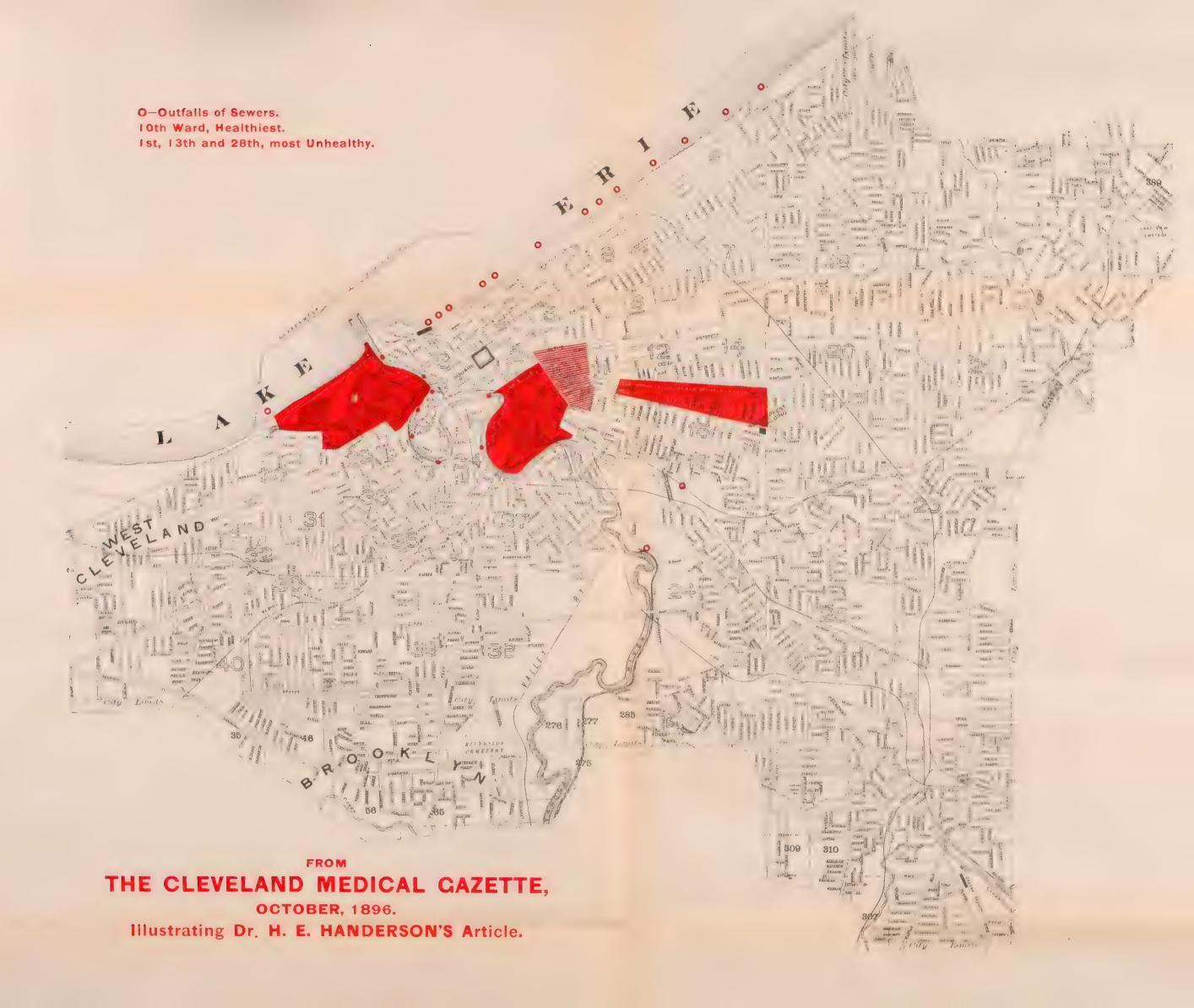
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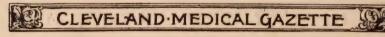
THE SANITARY TOPOGRAPHY OF CLEVELAND.

H. E. HANDERSON, M. D.

Professor of State Medicine and Hygiene in the Cleveland College of Physicians and Surgeons.

The City of Cleveland occupies an area of about 31 square miles, upon a rolling plateau elevated some 70 feet above the surface of Lake Erie and 630 feet above tidewater. Its shore-line upon the lake front measures about 7.75 miles. Near the center, this elevated shore-line is broken by the valley of the Cuyahoga river, a sluggish, shallow, filthy stream, which divides the city into two unequal parts. The area of the city east of the river is about 20 square miles, and west of the river about 11 square miles. On the south the city is bounded by a range of hills, of moderate and varying height, which present many appearances of having been at some remote period the original shore of the lake.

The plateau thus marked out by nature is drained east of the river by Doan's Brook, Giddings' Creek and Kingsbury Run; and west of the Cuyahoga, by Walworth Run and Big Creek. Doan's Brook, rising in the hills S. E. of Adelbert College, runs in a northerly direction through the 21st and 19th Wards, emptying into the lake outside of the



city limits within Gordon's Park. Giddings' Creek, taking its origin in the 21st Ward, flows also northward through the 20th, 18th and 9th Wards, terminating in the lake near the northern end of Willson Ave. Kingsbury Run rises by two heads, one in the township of Newburg, the other in the 23d Ward, which, uniting in the 25th Ward, pursue a generally westerly course to the Cuyahoga river. West Side, Walworth Run, taking its rise in the 40th Ward, forms the boundary line between the 36th, 40th, 35th, 39th, 34th and 37th Wards, running a course generally N. E. and emptying into the river; while Big Creek, having its source within the township of Brooklyn, forms substantially the southern limit of the city, west of the Cuyahoga, into which it empties about a mile south of the city-limits. The valley of the Cuyahoga river itself varies in width from one-quarter to three-quarters of a mile, and along the immediate borders of the stream is a low and level region known as "The Flats," occupied chiefly for manufacturing purposes.

The city is divided into 42 Wards of very unequal area, of which 27 lie east of the Cuyahoga, and 15 west of that stream. The area of the 10th Ward does not exceed 100 acres, while that of the 19th includes fully two square miles.

Assuming the recent Police Census of the city as approximately correct, the population of Cleveland is 330,279, an estimate which I believe cannot, at least, be accused of extravagance. Of this population 223,197 or 67.58 per cent. reside east of the river and 107,082, 32.42 per cent., west of the stream. The most populous wards are the 18th, with a population of 16,323, the 24th with 16,261, the 25th with 15,898, and on the West Side, the 39th with a population of 12,737. The least populous ward of the city is the 3d, which is credited with only 2,427 inhabitants.

The total population already assumed would yield a density of population for the east side of the river of 17 per acre, and for the west side of 15 per acre.

The total mortality of Cleveland for the twelve months ending June 30th, 1896, is reported by the Health Department at 5043, yielding a rate per thousand inhabitants of 15.27. This is an extremely low annual death-rate for a city of more than 300,000 inhabitants, the average

for the last 20 years in Cleveland having been 18.22 per thousand.

The mortality-rate east of the river however was 15.80 per thousand, while on the West Side it fell as low as 14.16 per thousand. It will be seen, therefore, that during the past year, at least, the West Side has surpassed the East Side in healthfulness, losing one hundred and sixty-four less of its inhabitants to each 100,000 of its population.

A similar difference is also shown in the mortality from the so-called zymotic diseases on the two sides of the river. The general mortality from these diseases during the period mentioned is reported at 3.016 per thousand. On the East Side, however, this figure is raised to 3.28 per thousand, and on the West Side it falls to 2.46 per thousand, a saving of eighty-two lives in each 100,000 of the population.

A lamentable fact, which, however, from its familiarity does not impress us as strongly as it should, is that, of the total mortality of 5043 at all ages, 1551, or about 31 per cent. occurred in infants under one year of age, and 2080, or more than 41 per cent., in children under the age of five years. To present these figures in a more comprehensible form, let us assume the birth-rate of the city as 31 per thousand of the population, a figure which cannot vary materially from the true ratio. This would give us 10,239 as the number of infants born within the year, and a mortality of 151 per thousand (nearly ten times the general mortality for all ages) for infants under one year of age. By the U.S. census of 1890 there were 121 children under five years of age to each thousand of the population. This ratio would yield for the present population of Cleveland 39,964 children under five years of age, and a mortality for children of that age of about 52 per thousand-about three and one-half times the general mortality. Here then we get a glimpse of a very important field for improvement in sanitation and therapeutic measures, and are brought face to face with a wholesale sacrifice of human life, which should shock us from the indifference occasioned by long familiarity.

Turning now to the classes of disease responsible for



the mortality of our city, we are met by the difficulty that the classification of diseases heretofore adopted by the Health Department in its Reports was changed in May last in such a way as to render it very difficult to compare successive periods. Up to May, 1896, the deaths were classified under the headings:

- 1. Zymotic Diseases.
- 2. Constitutional Diseases.
- 3. Local Diseases.
- 4. Developmental Diseases.
- 5. Deaths by Violence.

On the date mentioned this classification was changed to:

- 1. Fevers.
- 2. Diseases of the Nervous System.
- 3. Diseases of the Respiratory System.
- 4. Diseases of the Digestive System.
- 5. Diseases of the Circulatory System.
- 6. Diseases of the Urinary System.
- 7. Diseases of the Generative System.
- 8. Violent Causes.
- 9. Unclassified.

Diphtheria and diphtheritic croup with erysipelas are classed as fevers, while croup and membranous croup appear under the diseases of the respiratory system, and dentition, as a disease of the nervous system. It is not my purpose, however, to inquire whether this change has, or has not been an improvement, but simply to explain the difficulty of comparing the classifications before and after the change.

For the first ten months of the year ending June 30, 1896, the relative mortality from the different classes of disease was:

Local diseases, 42 per cent.

Zymotic diseases, 23 per cent.

Constitutional diseases, 17 per cent.

Developmental diseases, 12 per cent.

From violence, 6 per cent.

The ratio of violent deaths to the general mortality seems to me to be disproportionately large, but in the ab-



sence of reports from other cities of about the same size and character as our own, I am unable to say whether it is really above the average.

When we come now to study the mortality of the city by wards, we shall find most astonishing differences. Assuming as correct the ward populations furnished by the recent police census, the mortality e. g. of the 10th Ward was for the year only 9.1 per thousand, while that of the 1st Ward was 28.94 per thousand, and that of the 13th Ward 30 per thousand. On the West Side, the 42d Ward displays, likewise, a mortality of only 9.2 per thousand, and the 28th Ward one of 21.6 per thousand.

For the purposes of comparison, it may be well to divide the city wards into three classes, which we will call Shore Wards, River Wards and Upland Wards.

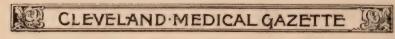
The Shore Wards, or those bordering upon the lake, are the 9th, 8th, 5th, 4th, 30th and 42d, including a population of 38,061, and displaying a mortality of 15.5 per thousand.

The River Wards, those bounded upon at least one side by the Cuyahoga River, are the 3d, 1st, 16th, 24th, 28th, 34th, 37th, 38th and 41st. These wards contain a population of 71,347 and exhibit an annual mortality of 16.6 per thousand.

Finally the remaining wards of the city, which, for the sake of distinction, I have called Upland Wards, contain a population of 220,871, and their annual mortality for the period under consideration was only 14.8 per thousand.

So far, then, as we can judge from the statistics of a single year, these wards rank in order of healthfulness: I, Upland Wards; II, Shore Wards; III, River Wards; the excess of deaths in the Shore Wards, as compared with the Upland Wards, being 7 in each 10,000 of the population, and of the River Wards, 18 for each 10,000.

The smallest rate of mortality in the city during the past year is found in the 10th Ward, bounded by Euclid and Woodland Avenues, Huntington, Brownell and Erie Streets. In this ward, as already mentioned, the annual rate was only 9.1 per thousand. The 42d Ward on the West Side, West Cleveland, follows it closely with a mortality rate of 9.2, and next to these comes the 20th Ward, bounded by Euclid Avenue, Quincy Street, East Madison and Willson Avenues, with a rate of 10.8 per thousand.



On the other hand, the ward showing the largest mortality for the year is the 13th, bounded by Central, Scovill and Willson Avenues, and Perry Street, and exhibiting the enormous rate of 30 per thousand. Closely following this is the 1st Ward, bounded by Huron, Cross and Erie Streets and the river, and displaying a mortality rate of 28.94 per thousand. The 28th Ward on the West Side, which includes the Flats in the vicinity of the Cuyahoga and the Old River Bed, comes in an easy third, with a rate of 21.7 per thousand. It is a singular fact that the 10th Ward, the banner ward of the city during the past year in point of healthfulness, lies directly between the 1st and 13th Wards, both infamously distinguished for their insalubrity, separated from the 1st Ward by the width of Erie Street only, and from the 13th Ward by the distance between Perry and Brownell Streets, where the 11th Ward interposes. Indeed the mortality rate of the 11th Ward itself is 20.18, so that the excessive mortality extends down to the very ward-line of the 10th Ward. We shall have occasion to refer to this fact hereafter.

In turning now to the consideration of the special diseases conditioning the mortality of the various wards, it is unfortunate that we have no data except as to the so-called zymotic diseases, the deaths from which are classified by wards, while the total mortality for the other diseases is tabulated simply under each disease.

The total number of deaths ascribed to the zymotic diseases during the year is 996, yielding a death-rate for these diseases alone of 3.016 per thousand. The deaths from these diseases east of the river were 732 and west of the river 264, yielding rates respectively of 3.28 and 2.46 per thousand. It is a surprising fact, and one which accounts to some degree for the low rate of mortality for the year, that of the 5043 deaths within the city, 10 only were ascribed to the exanthematous fevers, viz., none to small-pox and five each to scarlatina and measles. On the other hand, the diarrhœal diseases, cholera infantum, diarrhœa and dysentery occasioned 47 per cent. of the deaths classified under zymotic diseases, diphtheria about 25 per cent., and typhoid fever, 13 per cent. It will be seen, therefore, that 85 per

cent. of the deaths from zymotics were occasioned by these three diseases.

In tracing these diseases to their lair we are again led directly to those wards whose total mortality has already given them an evil reputation. The 1st Ward in this case leads the van with a mortality from zymotic diseases of 7.73 per thousand, closely followed by the 13th Ward with a rate of 6.25 per thousand. Next come the 23d Ward with a mortality of 5.74 per thousand, and the 26th, whose mortality from zymotics is 4.7 per thousand. On the West Side the 28th Ward, in the vicinity of the Old River Bed, is the only locality distinguished by an excessive mortality from zymotic diseases, furnishing a rate of 4.6 per thousand. Among these five wards, however, a distinction must be made in order to display in bold relief their sanitary character. If from the rate of total mortality in the 23d and 26th Wards we deduct their death-rate from zymotic diseases, we shall have remaining respectively the rates of 12.02 and 14 per thousand, as indices of their normal or ordinary sanitary condition. From these figures, which are not indicative of any excessive mortality independent of the zymotic diseases, we may infer that no permanent source of sickness existed within their borders, and that their excessive mortality during the past year was due entirely to an epidemic of infectious disorders. But if in the 1st, 13th and 28th Wards we make the same deduction for the mortality from zymotic diseases, there still remains for each, in the order mentioned, a mortality of 21.21, 23.75 and 17 per thousand. When we compare these figures with the general mortality-rate of the city, exclusive of zymotics, viz. 12.25 per thousand, it is apparent that some cause, other than a sudden influx of infectious diseases, is responsible for their excessive mortality.

It may, indeed, be argued that the high mortality-rate of these three wards is due to an undue proportion of young children within their limits, which would, of course, tend to raise their rate, independent of any special causes of disease. I am in possession of no data by means of which this question may be determined with precision. If, however, confidence may be placed in the school-census recently taken by the police, such an explanation of their excessive

mortality seems improbable, at least with regard to the 1st and 13th Wards. According to this census the proportion of children of school age to the total population of the city is 284 to one thousand. But in the 1st Ward this proportion is only 210 and in the 13th Ward only 246 per thousand. In the 28th Ward, however, this ratio rises to 309 per thousand. This proves nothing positively as to the number of children under the school age in each ward, though I am inclined to believe the relative proportions would be found very similar. The locality, the morals and the general character of the population of the 1st and 28th Wards, however, are such as to explain, to a considerable degree, the excessive mortality of these wards. The same cannot be said of the 13th Ward, and the high death-rate of this locality remains what philosophers call a "residual phenomenon" for further investigation. A density of population (thirty-seven per acre) more than double that of the average of the city, and, possibly, imperfections of sewerage or other causes with which I am unacquainted, may have something to do with the explanation of the insanitary condition of this upland ward. I merely call attention to it as a subject worthy of investigation.

Deaths from diarrhœal diseases occurred in every ward of the city, though the second and ninth wards enjoy the distinction of escaping with but a single death from this class of diseases.

Diphtheria occasioned deaths in every ward of the city except the 3d, 21st, 35th and 42d. The 1st Ward claims the notoriety of a death-rate from this disease alone of 3.5 per thousand.

Typhoid fever occasioned 130 deaths during the year, more than 2.5 per cent. of the total mortality and a rate of 39 deaths for each 100,000 of the population. This is less than the average for the years 1890-94, when the figures stood 49.2 per 100,000, but it contrasts very unfavorably with the rates of many of our cities which are not situated naturally nearly so favorably as our own. I quote a few of these rates for purposes of comparison. The period compared is the years 1890-94, both inclusive.

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Brooklyn, N. Y 19	per	100,000
New York City 20	66	66
New Orleans	66	46
Boston32.6	66	66
Detroit	66	66
Buffalo 39.2	66	66

Deaths from typhoid fever were reported from all wards of the city except the 3d and 10th; the highest rate from the 2d Ward, viz. 1.8 per thousand or 180 per 100,000. The general diffusion of the disease throughout the whole area of the city indicates a cause equally diffused, and supports to that extent the theory of polluted water-supply now so popular. Nor do I find any such increased proportion of deaths from this disease in the suburban wards as would justify the theory of polluted wells as the most common cause of typhoid.

The number of deaths ascribed to phthisis pulmonalis and tuberculosis within the year was 454, yielding a rate of 1.4 per thousand of the population.

Pneumonia and pulmonary congestion (I suppose a euphemism for the same disease) occasioned 408 deaths during the same period. This furnishes a death-rate of 1.2 per thousand.

The carelessness with which these terms are applied to all sorts of diseases of the respiratory apparatus indicates the impropriety of attempting any criticism of the simple figures furnished.

HYPEREMESIS GRAVIDARUM.*

BY W. W. HOLLIDAY, M. D., CLEVELAND, O.

Mr. President and Members of the Cuyahoga County Medical Society:

I have the pleasure of presenting to you this evening, as you know, that form of reflex disturbance in the pregnant state, in which there is a persistent inability to retain anything in the stomach whether it be liquid or solid.

I have two cases bearing upon this subject which, it *Read before Cuyahoga County Medical Society.



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CLEVELAND MEDICAL GAZETTE



HOLLIDAY: Hyperemesis Gravidarum.

occurred to me, might possibly be of some interest, illustrating more especially our inability to make a diagnosis of pregnancy even at eleven weeks on the one hand, and the comparative ease on the other, in which it was made out at seven or eight weeks.

Case 1. I was called to see Mrs. A., on February 25, 1895. She was a lady twenty-seven years of age, of medium height, well nourished, but not corpulent, and of a nervous temperament.

She stated that she had been ill for three or four days. She had gone down to the central part of our city and the day being cold and stormy she returned with a chill, headache, fever and general malaise. These symptoms subsided on the following day, when vomiting commenced, not continuous, but vomited two or three times, and there was an almost continuous nausea, both of which had been steadily increasing up to the time of my first visit.

She had been married something over a year.

About three months after marriage she aborted when about six weeks along, from which she made a good recovery. She stated at this visit that she had not menstruated for six weeks but that she did not think she was pregnant, as she would often go six and eight weeks without menstruating. Her menses commenced when she was fourteen years of age and were always scant and attended with some pain. She had, from her recollection, been troubled with what she had been told and believed was a dyspeptic trouble. She would have vomiting spells lasting a day or two and then subsiding. There was no history of any cancer or tuberculosis in the family.

Upon making an examination I could make out no enlargement of the uterus nor characteristic changes in the cervix. There was some tenderness on pressure over left ovary but no enlargement of that organ. There was no tenderness elsewhere either in pelvis or over abdomen. There was no enlargement of abdominal viscera or tumors of any kind. She had some slight pain in epigastric region and intense thirst. She had some continual pain in back of neck but no tenderness on pressure over the vertebræ. There was no hernia; bowels moved readily by enemas.



Holliday: Hyperemesis Gravidarum.

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Repeated examinations of urine revealed neither sugar, albumen, nor biliary pigment.

At my first visit I was suspicious of pregnancy, although I could not substantiate that fact from my examination and from history of having had these attacks before, I prescribed accordingly, and gave her a hypodermic injection of morphia; also left some powders containing calomel and bicarbonate sodium. Also directed counter-irritation over stomach to be followed with warm fomentations, directed her to remain in bed and to abstain from nourishment of any kind for a few hours after the vomiting had ceased.

At my next visit she was no better, said she could not retain the medicine. Then I gave her subnitrate of bismuth and carbolic acid in mucillaginis acaciæ and peppermint water with no better results, she would vomit everything she took, even water. Then I tried bismuth and oxalate of cerium with no relief. In the meantime I had been keeping her nourished on peptonized milk enemas. I now again examined her for pregnancy with no enlightenment in the case, but her rebellious vomiting in spite of what she had taken, made me feel that she was either pregnant, or that there was some malignant trouble which I had not been able to detect. Her age and family history would rather exclude the latter-though not necessarily so. I was more inclined, however, to believe her pregnant, and concluded to try Bartholow's plan of giving drop doses of wine of ipecac. Then I tried Fowler's Solution and still failing to give relief, I concluded to stop the morphia which I had been giving hypodermically, thinking this might be aggravating affairs and intended to substitute chloral enemas; but she refused to have this used as she said the milk enemas were becoming so irksome.

I again examined her for pregnancy and found no changes either in the size of the uterus or shape and consistency of the cervix.

Thinking now that possibly her vomiting might be due to stomach trouble, I concluded to try lavage, but this treatment, to the friends, and to the patient, seemed heroic; and they now requested me, for the first time, to call council, which I was very glad to do.



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We called in the physician they suggested, an old clinician and with whose name you are all familiar. He, too, was suspicious of pregnancy, but after examining her, he was in doubt about it, and advised giving lavage a trial. He also advised giving strychnia hypodermically with the morphia to sustain the heart, also advised giving hydrochlorate of cocaine tablets and to direct that they be allowed to dissolve slowly in the mouth. I used lavage once a day for three days with no benefit when I abandoned its use. The enemas of milk were sustaining our patient surprisingly well. In fact I had formerly been skeptical on the benefits I had ever received from their use, although I have always used them whenever indicated, but in this case I am sure our patient's life was prolonged and, but for their use would have succumbed much sooner than she did. There was a limit to it, however, and later our patient commenced to show evidence of failing in strength, when I requested council from a surgeon. This wish was granted me, and the surgeon's name, too, is familiar to you all and whose ability and reputation we recognize as reflecting credit on the profession. We placed her under the full influence of an anæsthetic and examined her thoroughly with negative conclusions as to what was the trouble and no operation of any kind was advised.

April 10th, it was plain to be seen that the end was near, and on the morning of the 11th she died. After persistent effort on my part, I overcame the prejudice of the friends in having a post-mortem examination and on the following day made the autopsy.

The first organ examined was the stomach. This had contracted so that it was no larger than the transverse colon and closely resembled it in shape; the mucous membrane was normal and there was no obstruction to the pyloric orifice; in fact, all the abdominal viscera were perfectly normal.

On reflecting the intestines we found the uterus extending up to the upper part of symphysis pubis and on opening it extracted a fœtus of about three months, I should say. This has impressed me with the fact that I had made no examination of uterus since we used the anæsthetic, for



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I think pregnancy had practically been excluded. There was evidently a rapid growth during these ten days. Lusk in his work on Obstetrics mentions the fact that in some cases the fœtus develops slowly; also that the enlargement takes place in the antero-posterior and lateral diameters before it occurs in the longitudinal.

Then, too, with our patient vomiting continually and being poorly nourished in consequence, this might and I think would, be another cause for the slow development. So that even at this eleven weeks' time when our anæsthetic was used and there was no apparent enlargement in the uterus or changes in the cervix, pregnancy could not be excluded. It also impressed me with the fact, that while our patient was under the influence of an anæsthetic and we were still in doubt as to our diagnosis, it would have been a proper and safe procedure to have rapidly dilated the uterus and explored it, and if pregnancy existed to have relieved the uterus of its contents.

We have been told of some of the mistakes of Moses. We occasionally make them ourselves, and while it may not be pleasant or even fashionable to talk of them, it occurred to me it might be practical if we did it more. It matters not how careful we are, we may drift into sandbars and it's a good plan to have these danger signals raised that others may keep in safer waters.

CASE 2. Mrs. B, aged 21, American, nervous temperament, rather tall and slight physique, consulted me at my office on April 20th, 1895. She stated that she had been married about three months, had always been regular in her menses until six weeks before, and said she was now troubled with vomiting, which was worse on rising in the morning. I did not examine the uterus at this time but concluded she was pregnant, and prescribed accordingly.

On April 25th her husband called and stated that his wife was worse, and wished me to call. I made an examination at this visit, and found the uterus enlarged, cervix was ædematous and cervical canal round. I used everything I could think of, as in the preceding case, with no benefit. Then I tried Copeman's plan, which, as you know, is to



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dilate the cervical canal after dipping the instrument in pure carbolic acid. In this case I used simply a pair of long dressing forceps, which I had with me. Also painted the cervix, which was eroded, with the pure acid, but without benefit.

One morning I concluded that inasmuch as there was an erosion of the cervix, I would use a ten per cent. solution of ichthyol in glycerine on a tampon and apply to the cervix.

To my surprise, when I called to see her that evening, she exclaimed that she had not vomited all day. The next morning when I called, she said she became so hungry in the night that she compelled her sister to bring her a cup of tea and a slice of toast, which she retained, and that she slept well the remainder of the night, and took the same for breakfast, without either nausea or vomiting after it. I directed her to retain the tampon for four days unless it produced pain. She made an uninterrupted recovery, and I dismissed the case May 6th—twelve days after my first visit.

On May 25th, her husband called to pay her bill, and said she had had scarcely any trouble since. I saw her on the street about three months later, and she informed me that she was feeling very well. They moved to another city soon after, and I heard nothing more of the case. I don't know if it was the treatment she received, or whether it had simply run its course, but it would certainly give me encouragement to try it again should I meet with a similar case, for this case was fully as rebellious as the first, and she was becoming so rapidly exhausted that I should have considered it necessary to have called council with the view of inducing an abortion by evening, had there not been a cessation of the vomiting.

In looking up this topic I find in Sajous' Annual, 1894, that La Torre of Rome has recommended a twenty per cent. solution of ichthyol in glycerine to be applied to the cervix by means of a tampon, believing that the vomiting is due to the abnormally congested cervix which irritates the nerve filaments. Any other measures of the same nature would in his opinion give similar results.

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One writer in the *Lancet* speaks of the permanent and prompt relief given by producing vesication over fourth and fifth dorsal vertebræ.

Gustav Lang of Paris calls attention to the gravity of these cases of incoercible vomiting in pregnancy, stating that Gueniot recorded 118 cases, 72 recovered, 46 died. Pinard reports 200 cases, 120 recoveries and 80 deaths. Joulin has reported 121 cases with 49 deaths. Without treatment he reports 57 cases, 28 of which were fatal.

With treatment (abortion induced) 36 cases, 9 only died. In conclusion allow me to say, that with these facts before us, it would impress us most forcibly of the necessity of watching this class of cases closely and not allow the patient to become exhausted before resorting to an operation. Each individual case of course must be our guide as to when an operation should be performed. There can be no fixed rules.

RACHITIC DEFORMITIES OF THE LOWER EXTREMITIES. WITH TREATMENT AND REPORT OF CASES.*

BY STEWART L. McCURDY, A. M., M. D.,
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Passing over the conditions which produce deformities of the lower extremities, I desire to briefly consider the methods of treatment.

Genu varum, or bow-leg, is the most common variety of deformity. It is almost invariably a giving away of the supporting power of the tibia immediately below the head of this bone.

A second curve of the tibia is found above the malleoli in very aggravated cases. Less frequently the primary or greater curvature is found above the condyles or in the lower fourth of the femur.



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Genu valgum, or knock-knee, is due to curvature in the tibia and femur or elongation of the internal condyles, possibly most frequently of the latter variety.

Treatment may be subdivided as follows: Diet, Medical, Manual, Mechanical, Operative.

The rule that operative interference should not be resorted to under four years is a good guide. The reason given is that the bones are quite soft and will yield to manipulations and mechanical pressure to that age.

In cases where the deformity is marked, at, or after this age, mechanical treatment will do little good and surgical interference is demanded.

Children rarely show rachitic tendencies when nourished at their mother's breast. When they are deprived of this form of nourishment cow's milk should be used in preference to artificial food. When artificial food is used, probably the best preparation for babies is malted milk, although in some cases, this preparation is not acceptable. Fruit juice and beef juice, soup or gravy are essentials in the feeding of rachitic or scorbutic children.

Medicines should be administered sparingly. Preparations of iron, phosphorus and lime being preferable.

Manipulations of the extremities daily or two or three times per week is of great benefit.

In case of bow-leg with the primary curve below the knee this is carried out by grasping the head of the right tibia with the left hand and the malleoli with the right hand and gradually but forcibly bending the ankle outward, repeating this a number of times. It will be found that the bones are quite yielding. For the left leg the reverse is carried out.

Mechanical treatment for bow-leg. Of the innumerable braces invented, nothing seems to stand the test of time and do the work so well as the Knight brace, to be used for curvature of the tibia, but is of no value when the curvature is in the femur. The brace has two pressure points upon the inside of the leg, viz., the internal malleolus below, and the head of the tibia, with the internal condyle above.

The counter-pressure is made upon the convexity of the curve at the greatest prominence, or as may be desired, by the use of straps and buckles.



Fig. 8.

Fig. 3.

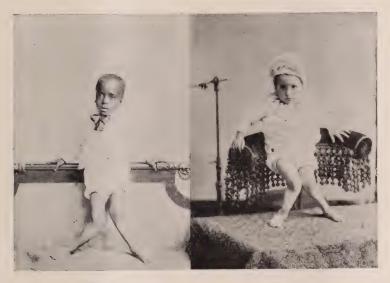


Fig. 4.

Fig. 5.



Fig. 6. Fig. 7. ILLUSTRATING DR. McCURDY'S ARTICLE.



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The Knight brace has an extra bar directly back of the leg, which prevents it from twisting around as it would do without it.

If the curvature is in the femur a higher pressure point must be selected along the femur and a point made in the brace opposite the knee.

Mechanical treatment, in cases of knock-knee is not as effective as in cases of bow-leg at the same age.

Here there are but two pressure points, viz., external malleolus below, and the femur below the trochanter above, counter-pressure being made upon the internal condyle of the femur by the knee-pad.

In this brace a joint is made opposite the knee.

Operative treatment may be subdivided as follows:
Osteocampsis. Osteoclasis. Subcutaneous osteotomy—
Cuneiform or multiple.

Osteocampsis is a bending of the bone, and may be considered as an exaggerated manipulation. This may be done by the use of the hands or by an osteoclast.

Osteoclasis is the procedure carried to a green stick fracture, or beyond this sufficiently to correct the deformity. In this operation damage is done to the soft structures at the joints where pressure is applied by the pads of the osteoclast.

The Lorenz osteoclast is probably the best machine now in use.

Osteotomy, done subcutaneously, and under antiseptic precautions, is to my notion the method to be preferred, as the means of operative procedure, after manipulations and mechanical treatment have failed.

It leaves nothing but a simple fracture to treat, and is well in thirty days, with but two dressings.

In bow-leg cases one simple subcutaneous osteotomy is generally sufficient. In knock-knee, however, a second operation, or double operation, is often demanded, and it is frequently necessary to remove a wedge-shaped piece from the curved surface before correction can be made. It is important to see that the toes sustain a proper relationship with the patella, etc. It is necessary in some cases after the bone is fractured to evert the foot in bow-leg, and invert it in knock-knee.





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In these cases both legs were operated at one sitting.

During the last two years I have had sixteen cases of rachitic deformity of the lower extremities under treatment, as follows:

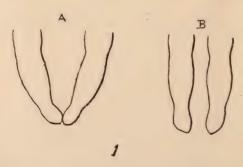
Bow-leg				11
Knock-knee				3
Knock-knee and anterior curve of tib	ia		. 1	2
•			-	16

Of these but three required operation, one knock-knee and two bow-leg, all the rest being corrected by mechanical treatment.

The cases corrected without operation required from three to twelve months' treatment, the length of time depending greatly upon the attention given the case. The braces should be examined frequently to see that they are doing the work. Manipulation and manual correction should be carried out with persistence.

The braces do not materially interfere with locomotion, and the patients should be encouraged to run about constantly.

I desire to call attention to the tracings in two cases shown in Fig. 1 and 2 (A), representing the deformity when treatment was begun, and (B) showing improvement obtained.



It was not thought necessary to give detailed report and drawings of all the cases treated without operation. Fig. 3 shows one of the most aggravated forms of knock-knee and anterior curvature of the tibia corrected mechanically. I am sorry I can not get a photo of this case, as the patient

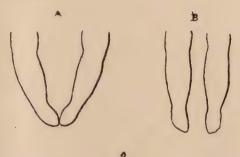
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lives at a distance, and I am unable to get more than the information that the legs are straight.

The cases requiring operation may be reported briefly as follows:

Fig. 4, aged five years, with double bow-leg, the primary curvature being immediately below the head of the tibiæ.

The latter fact might be disputed by one who does not thoroughly appreciate the fact that the space between the internal tibiæ line and skin line is filled up by soft structures, and what appears to be the greatest curve below is much less than the upper curve.



Operation was a subcutaneous osteotomy with a Vance chisel. The cut was made upon the antero-internal aspect of the tibia, an inch or so below the diaphaso-epiphyseal line. The bone is not cut entirely through with the chisel, but only far enough to admit of a fracture. The wound thus made is little more, and less dangerous than a needle puncture.

The wounds were dressed with iodoform gauze and rubber tissue protective, and the legs put up in plaster of Paris, and was allowed to remain until the fifteenth day, when the first dressing was made. The second dressing was made on the thirtieth day, at which time the patient could stand. Plaster dressing was continued for about fifty days.

Fig. 5 shows the result. There was no pus and no elevation of temperature.

Fig. 6 required very much the same operation, and the after treatment was the same except the plaster of

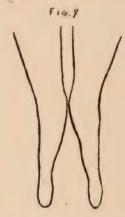


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Paris dressing had to be removed more frequently because the patient had eneuresis, and they were constantly soiled.

The result is shown in Fig. 7, the knee being tilted slightly forward. In this case we had no pus and no temperature.

Fig. 8 shows a marked deformity. The patient was six years old and the bones were very hard.



One operation was done on the tibiæ with the result shown in Fig. 9, which is not satisfactory by any means, but a promise to a consumptive mother who died about the time a second operation had been planned, prevented a complete correction by subsequent operation. In this case the union was perfect, the wound healed as a simple fracture, and no complicating symptoms presented themselves.

OPHTHALMIA NEONATORUM. ITS PREVENTION.*

BY J. C. BISHOP, M. D., COLUMBUS.

Gentlemen:

I know of no branch of the practice of medicine wherein the well known adage, "An ounce of prevention is worth a pound of cure," may be applied with greater propriety than in that which relates to the prevention of that

^{*}Read before the Ohio State Pediatric Society, May, 1896.



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dread and destructive disease of new born children and known as ophthalmia neonatorum. When we consider that about 20% of the loss of sight occurs in childhood and is the result of that disease, that almost all of this is susceptible of prevention, it does not then become a matter of sentiment to strive to accomplish that end, but a sacred professional duty alike humane and imperative. It is a great satisfaction to be the instrument in the hands of Providence to cure a disease, but a still greater, if we are able to prevent the continued suffering, and at the same time, by the employment of simple and harmless means, prevent it. should be a source of satisfaction to you who are in the general practice to know that the prevention of so great a percentage of blindness may, and even must be due to the conscientious efforts of the general practitioner, rather than to the oculist. The practice of obstetrics is to-day occupying a much more enviable position in the healing art, than ever before. This is due: first, to the advanced teaching which prevails in our colleges, and second, to the routine employment by many physicians of the established principles of antisepsis and asepsis. Yet as the result of the personal observation of your reporter, it is believed, that the vast majority of those who engage in obstetrical practice, not only in the country, but even in the cities as well, and those, too, who have every facility for becoming acquainted with the principles and value of antisepsis, either from negligence or carelessness disregard it. It is significant, too, that the great majority of the cases of ophthalmia neonatorum we see, occur in the practice of those who are not the most fastidious in regard to the simple rules of cleanliness, and deride the employment of antisepsis, especially in obstetrics. If it were possible to induce all of our confreres who engage in obstetrical work, to employ habitually, the very simple precautions long ago recommended by Crede and which accomplished so much in his practice, at the same time they use the agents which our present knowledge of antisepsis has shown to be eminently efficacious as germicides, we might almost entirely eliminate the disease under consideration. The victims of ophthalmia neonatorum comprise a large per cent. of the inmates of our





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blind asylums, and are scattered all over the country. You may read their history at a glance. The glistening cicatricial staphylomatous cornea, or the soft, sunken phthisical globe which is often only a mere button, is not easily mistaken. When the great commonwealth of Ohio two years ago, passed the law for the prevention of blindness, she ranged herself on the side of humanity; for the law bears upon this very subject. It is hoped that the proper observance of its provision's will materially aid in reducing the number of cases of loss of sight resulting from this affection; but we will not realize the full and complete superiority of prophylaxis over treatment without the intelligent, assiduous and conscientious co-operation of the obstetrician. Upon his conduct we must rely for success.

To gentlemen who make up such an association, which has for its object a consideration of the best means for the alleviation of the diseases incident to childhood, it is presumed that argument as to the necessity for the employment of even the most strenuous means of prophylaxis, which prevents, rather than trusting to the uncertain results of treatment, must appear superfluous. But while there are yet so many in the practice of medicine who have grown gray in the harness, who have the temerity to boast that they have always most rigidly ignored all precautionary procedures, and deny that they have given consideration to the value of even ordinary cleanliness, and declare that their results are equal to the best, we desire to mildly yet solemnly protest.

Because one may have had results which, though satisfactory to him, (might be far from it, if measured by the higher standard,) in spite of his negligence, does it lift from our consciences the burden of our responsibility? If "fools rush in where angels fear to tread," are we, as we stand at the threshold of the twentieth century, with its advanced ideas, to follow in the footsteps of those who do not believe, because they will not? In surgical practice, the strictest attention to details and the application of the most advanced ideas of antisepsis, has placed that branch of our art almost (pardon the expression) "out of sight".

We do not lose sight of the fact that sometimes under



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the most unpromising and forbidding environments a result may follow an operation which would seem to set at defiance the prevailing germ theory of causation as accepted by our most astute pathologists, while the next, under diametrically opposite conditions, will result disastrously. Your reporter was once compelled, by the force of circumstances, to the performance of a cataract extraction under the most forbidding and unhygienic surroundings, and he did it with fear and trembling for the result. Yet the outcome left nothing to be desired. He can only explain it by the fact that "the fates were with us". To-day, we are watching with eagerness the discovery of a multitude of varieties of microbes, cocci, bacilli, etc., and while we now appreciate some of their ravages, we have yet much to learn concerning these microscopical foes to life and health. We accept as a fact their existence, and know of their influence in the production of pathological conditions. We know, too, that where they do not exist, we do not have their results. It must be our duty then to prevent their contact with tissues which permit their development, or destroy their effects, or both. we, by suitable measures, render them incapable of deleterious action, or in other words, render them innocuous, we insomuch prevent disease. The surgeon who to-day does an important operation, (and they are all important), without the most careful attention to antisepsis in all its details, may be said to deny his patient many chances of recovery. It has become obligatory, and even the laity insist upon it. As the result of our own observations, which extend from 1869 to the present, it is believed that one-half of the gentlemen who practice obstetrics, and four-fifths of the midwives who infest the country, absolutely and entirely ignore the very simple means, which, if they were employed by all, would prevent the blindness which is now believed to be the result of negligence inexcusable.

Crede in his own practice, succeeded in reducing the percentage of cases of ophthalmia neonatorum from 9 to 5%, by the very simple procedure of carefully cleansing the eyes of all new born children at the time they were given their first bath, with pure warm water and absorbent cotton or soft cloths, so that the discharge which so often adheres



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to the skin and which may find its way into the palpebral fissure is effectually prevented from coming in contact with the delicate conjunctiva, and then dropping into each eye, a few drops of a 2% solution of argenti nitras. This is neither difficult nor laborious, but it has made the name of Crede celebrated. Now may we not by going a step further, succeed in eliminating that remaining 5%? The profession being practically united as to the cause of ophthalmia neonatorum, we may ignore the very accommodating theory of too early exposure to bright light, etc., and say that it is due to a blennorrhoic infection, which takes place during the passage of the child's head through the vagina, or by the same material finding its way into the eyes by other means. If the mother is not suffering from the disease and the child becomes diseased, then, some one else who has access to it, must be. And against that which comes from a foreign source of course antisepsis is powerless. But infection from extraneous sources must be exceedingly rare, and need hardly be taken into consideration. We have never known a case which was not due to an existing blennorrhæa in the mother, and in which the gonococci could not be found if looked for. If, then, the disease comes from the mother, can we, without detriment to her and without in the least interfering with the safety or integrity of the parturient process render the same practically innocuous to the child? Experience answers yes. In a practice of 28 years, we have never known a case of ophthalmia neonatorum where the precaution was taken to thoroughly cleanse the vagina with a douche prior to the passage of the fœtal head. What can be more simple? What more efficient? It is all that is necessary, and yet it is a means of preventing blindness.

Pure warm water is vastly better than nothing, but not as potent as any of the germicides in common use. It has been the habit of your reporter to employ a solution of corrosive sublimate 1 to 5000 for the purpose of rendering the vagina practically sterile, or at least sufficiently so, to preclude the possibility of infection, and it has behaved so well, he has never had reason to use any other. If you are more favorably impressed with some other of the multitude

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of germicides, use the one you prefer, but never neglect to carefully cleanse the vagina. When called to a case of confinement, and after you have completed your examination, cleanse thoroughly the vagina with a Fountain or Davidson syringe, once if the labor is rapid, and twice or more if it be tardy according to the time required to complete the process of birth, using the mercuric solution mentioned; after the child is born, and at the time of the first bath, carry out the well known recommendation of Crede, and you will materially aid in that most laudable effort to do away with the ophthalmia of the new-born. The ravages of the disease we so desire to prevent are of such gravity, that to accomplish the prevention thereof would be a monument to the value of attention to little things.

CERTAIN MISCONCEPTIONS REGARDING CARDIAC MURMURS AND THEIR INTERPRETATION.

BY ARTHUR R. EDWARDS, A. M., M. D.

Professor of Therapeutics, Northwestern University Medical School; Attending Physician Cook County Hospital; Pathologist to Cook County, St. Luke's and Wesley Hospitals.

The cardiac murmur is a subject of greatest diagnostic, prognostic and therapeutic importance, regarding which certain authoritative and popular misconceptions prevail. There has always been an inclination to place undue stress upon the mere existence of heart murmurs, to the disregard of other equally, or indeed more, essential physical findings. Authors, especially of the French school, have been prone to draw broadest inferences from the very loudness and timbre of heart murmurs, a tendency still rife among clinicians and practitioners.

The loudness of a murmur sustains no invariable relation to the severity of the causal lesion. Guttman states the stronger the murmur the more marked is the underlying pathological alteration, although he admits many exceptions and relies more upon other methods of examination.



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Dilatation and hypertrophy of a cardiac chamber signify more than a mere murmur of given intensity. I recall an instance of an enormously dilated heart, characterized by a very loud, rough murmur, in which, after death, the valves were perfectly smooth. Gradually increasing stenosis and insufficiency frequently present physical conditions under which murmurs disappear. Cardiac examination in the ultimate stage of disordered compensation is often unsatisfactory, as an accurate study cannot be made. I have observed several cases of aortic regurgitation in which the murmur previously recorded disappeared some weeks before death. In such cases the diagnosis from myocarditis and kindred affections may be impossible. Valvular murmurs may disappear temporarily during an intercurrent febrile affection, or be permanently buried under terminal tachycardia. Loudness bears an important relation to cardiac activity, a fact in which lies a diagnostic suggestion. Loudness may vary from day to day, and intensity alone does not influence prognosis, as a fainter murmur can signalize heart failure.

Sahli states that standing or sitting intensifies murmurs that are weak in the prone position, while Eichhorst describes endocardial murmurs as becoming weaker or disappearing on standing. I have never been able to demonstrate any constancy between intensity and any single position, although Eichhorst's practice of examining patients in different positions obviates many errors.

French writers have said much regarding the timbre of cardiac murmurs, and have dogmatized that their acoustic characters determined sclerosis, calcification, or the degree of lesion. Eichhorst deprecates such generalizations, and denies their diagnostic value. Rough, smooth, blowing or sawing murmurs depend on purely physical conditions of the valves and blood current.

Particular importance is attached to musical murmurs and those that may be heard at a distance. Aortic and mitral lesions have produced musical murmurs. At autopsies are found perforation of the semilunar valves (Schrotter), abnormal chordæ tendinæ across the ventricle (v. Drosda), torn papillary muscles, or relative aortic



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regurgitation (Groedel), but often no cause is found. Murmurs par distance, heard by the patient himself or those around him, are musical, singing, or squeaking, and are observed in aortic stenosis (Stokes, Ebstein) and aortic regurgitation, but are sometimes accidental (Ebstein, Eichhorst.) During the last year I attended a physician with great cardiac dilatation of arterio-sclerotic origin, in whom a relative mitral regurgitant murmur could be heard from the foot of the bed. It disappeared when rest removed the dilatation. Timbre has, however, a relative significance. Hard, calcified, rough valves often produce murmurs, as do also torn chordæ tendinæ and loosened valves. Aortic regurgitant bruits are soft and blowing, while those of aortic stenosis are harsh and sawing. In mitral leakage the murmurs are loud but short, and in mitral stenosis, faint, rolling or rippling.

One of the most cardiac bruits is the "accidental" murmur, also known as inorganic, accessory, adventitious, functional, hemic or anemic. Sahli properly objects to calling accidental murmurs inorganic or functional, as they may depend upon functional valvular disturbance, and besides, not all accidental murmurs rest upon an anatomic basis. He rejects the term anemic, as accidental murmurs may occur from valvular insufficiency, even in chlorosis and anemia; and again, not all accidental murmurs are anemic. The division of murmurs as follows is proposed: 1, Valvular; 2, Functional; 3, Accidental.

We can only speculate as to the pathogenesis of accidental murmurs. There are theories innumerable, but that advocated by Sahli seems most applicable, that the rapidity of the cardiac contraction explains the murmur. In acute anemia as from hemorrhage the resistance to the systole is reduced and accidental murmurs intervene. In chronic anemia the quality of the blood is altered, and thereby the resistance to the systole is reduced, with consequent acceleration and with accidental murmur. Cohnheim has produced a cervical venous hum by artificial hydremia.

The differential diagnosis of accidental murmurs is often difficult. Many sweeping statements have been made and criteria established whose unreliability has, in my experience, been conclusively true.

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THE ETIOLOGIC DIFFERENTIATION.

Accidental murmurs may occur in health. Scoda found them in acute rheumatism, pregnancy, puerperal disease, carcinoma, typhoid fever, small-pox and anemia.

(Percussion, S. 212). They are found in fevers, anemia, cachexia, and in inanition from whatever cause. Whatever lowers blood pressure, releases the arteries and increases the heart's action, may produce accidental murmurs.

Groedel affirms that the diagnosis is easy when there is a concomitant venous hum, which, according to Filatow, accompanies "anemic" bruits. Walshe cannot remember an instance of organic heart disease associated with an anemic bruit de diable. Rheumatism may argue for valvular disease. These laws assist in certain instances, but like all statements that are not absolutely true, fail when infallibility is most imperative. For example, in a case without previous history, with high and somewhat irregular temperature, rapid pulse, diffuse durunculosis, delirium, involuntary evacuations, a dilated left heart, a loud, harsh, mitral murmur, no reseolæ, no diarrhœa, no tympany, and no splenic tumor, the diagnosis lay between a late typhoid with an accidental murmur and septicopyemia with cardiac localization. The lack of alteration in the left ventricle turned the scale in favor of typhoid, and the diagnosis was established at the autopsy.

For the same reason the case of a Chinaman with a parotid abscess, meningeal symptoms, high temperature, and a loud, blowing apical systolic bruit, was diagnosticated sepsis without valvular involvements and was confirmed after death.

Not every murmur observed in anemic patients is inorganic. Many are relative, valvular insufficiencies. Vierordt recounts two cases of pernicious anemia in which the diagnosis oscillated between organic and inorganic murmurs with final decision in favor of their functional origin. The autopsy, however, revealed endocarditis and very slight ventricular hypertrophy, the diagnostician having been baffled by concomitant emphysema. Valvular

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heart disease may produce a profound secondary anemia, a confusing point never mentioned in this connection by diagrammatic physical diagnosticians.

PHYSICAL EXAMINATION OF THE HEART.

Only physical examination of the heart by methods other than auscultation can determine the status of a cardiac murmur. In organic cardiac diseases are found hypertrophy, dilatation, loud or accentuated tones replaced or accompanied by murmurs, and abnormal arterial phenomena, e. g., anomalous sounds, the pulse, capillary pulse, etc. While considerable dilatation may complicate anemia, yet hypertrophy argues for organic change. Dilatation of either or both ventricles in anemia is neither marked nor is it attended by hypertrophy. Leube says that while the secondary pulmonary sound may be somewhat accentuated in anemia, it is not markedly so, nor is it palpable. neglecting careful cardiac percussion physicians often err. With reliance upon exhaustive physical examination the diagnosis of heart disease becomes one of the easiest, most satisfactory and most accurate.

SYSTOLIC AND DIASTOLIC MURMURS.

Regarding the cardiac phases of murmurs, the formal teaching prevails that anemic bruits are always systolic (Finlayson, Flint, Guttman, and others.) While they are usually systolic, such dogmatic statements cannot, I believe, maintain. I have observed and reported cases in which anemic diastolic bruits were heard over the large thoracic and abdominal venous trunks, and functional diastolic murmurs were observed in relative aortic regurgitation. Sahli has again reported a similar series. A case of chronic cardiac exhaustion from overwork has recently been in my ward, in which was heard an apical presystolic murmur, disappearing under rest, digitalis and purgation. Fisher cites cases of presystolic murmur dependent upon aortic disease, cardiac dilatation (concretio cordis cum pericardio), and once upon hypertrophy and dilatation of the

3 Lancet, March 9, 1895.

¹ American Journal of the Medical Sciences, Oct., 1895.

² Correspondenz-Blatt fur Schweizer Aertze, June 15, 1895.

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right ventricle. The diastolic and presystolic phase per se has been over-estimated in the exclusion of inorganic murmurs. I think I may expand Fraentzel's rule that systolic murmurs without other cardiac change do not imply organic disease, and assert that no murmur in itself, whether systolic, diastolic or presystolic, definitely determines valvular lesion.

LOCALIZATION.

Hemic murmurs are heard mostly over the pulmonary area, but are often propagated to the apex. They occur rarely over the aortic and tricuspid valves. Latent aortic stenosis, without murmur or without ventricular change, may simulate inorganic bruits. Vierordt has found inorganic pulmonary murmurs sometimes quite confusing, especially when widely propagated.

Organic mitral lesions may be heard only over the anatomic seat of the valve at the base of the heart, on account of the retraction of the lung from the enlarged left auricle (Naunyn).

TIMBRE.

In the earliest days of auscultation, Gendrin described inorganic murmurs as blowing, and sharply separated them by this point alone from the harsher organic bruits. Skoda (page 212) especially disagreed with Gendrin and insisted that no special emphasis could be attached to the character of a bruit. Guttman described accidental murmurs as being always short and blowing. Sahli explicitly stated that a sawing, musical or blowing murmur is not necessarily, although usually, organic. I have heard numerous very loud and coarse murmurs which were proved accidental by their ultimate clinical course or by post-mortem examination. It is usually affirmed that inorganic are not as loud as organic murmurs (Leube, Sahli and others). The murmurs of valvular disease may become very weak, or pronounced lesions may pass to autopsy without a bruit. characterizes anemic murmurs as superficial, inhalation-like and dependent on respiration.

Fremissement cataire has been classified as exclusively a sign of organic cardiac disease, a statement to which

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Eichhorst justly takes exception. V. Bamberger has said that anemic murmurs seldom cover a tone but rather "hang on to it." Hutchinson's statement that anemic murmurs disappear on lying down has been disproved, although French authors (Petit and Potain) maintain that change of position alters the murmur. This fact cannot have differential value, for organic murmurs behave in the same fashion.

Feeble propagation has been long held as typical of accidental murmurs, but the same is true of mitral stenosis, and inorganic murmurs may be heard par distance. I have heard two anemic bruits in tuberculous cases in which the murmur was transmitted over the entire chest.

Appropriate therapy may differentiate organic from inorganic murmurs. Chalybeate treatment will often remove the anemic murmur and digitalis frequently correct functional valvular insufficiency. A protracted clinical course will exclude accidental murmurs, which are inherently short-lived.

Hochsinger has found that accidental murmurs do not occur before the fourth year, hence murmurs occurring before that age are organic, even though the physical findings do not concur, i. e., are unattended with hypertrophy and dilatation.

Finally, accidental murmurs are diagnosticated only after logical exhaustive exclusion.

Exocardial murmurs demand at least some mention in the consideration of endocardial and accidental murmurs. I have elsewhere * reviewed the literature of murmurs due to blood currents in the large intrathoracic, and even the abdominal venous tissues. These murmurs but seldom receive the attention they merit, and may lead to embarrassing errors.

The cardio-respiratory murmur comprises two types. In one the bruit is caused by the heart beating the overlying lung margin against the thoracic wall with each systole, thereby producing a high pitched, superficial, curt systolic murmur, which is of greatest intensity during expiration, is increased by excitement and is located usually just external

⁴ American Journal of Medical Sciences, 1895.



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to the apex beat in the nipple line, but may also be heard over the pulmonary trunk and in the left interscapular region. It usually disappears when respiration is suspended and when the patient is in the recumbent position.

The second variety of cardio-vascular bruit is due to the rushing of air into the lung contiguous to the heart when the heart contracts. This variety is most intense during inspiration and its character is jerky and short and is systolic in point of time, ceasing when respiration is suspended.

Careful physical examination should prevent confusion with accidental murmurs heard when the heart is displaced by adhesions, exudate, or subphrenic accumulations of gas or fluid and solid enlargements. The murmurs of pericarditis, aneurisms and aortic atheroma are readily differentiated from the bruits under consideration.

103 State Street.

CUYAHOGA COUNTY MEDICAL SOCIETY.

At the regular meeting of Sept. 3, 1896, Dr. J. E. Woodbridge presented a paper advocating the treatment of typhoid fever by intestinal antisepsis in accordance with the method used by himself, taking as a basis some 1,200 cases in the practice of 279 physicians who had reported to him. Dr. Woodbridge had himself seen 800 cases with no deaths during the past fourteen years.

DR. A. J. BROCKETT had obtained excellent results with carbolic acid in doses from one-half minim upwards, every three hours, and considered the effect to be similar to that

of the drugs used by Dr. Woodbridge.

Dr. H. J. HERRICK believed in the sufficient use of laxatives, intestinal antisepsis, liquid diet (excluding milk), and free quantities of water. He laid especial stress on the comfort sometimes afforded the patient by a hot poultice.

Dr. J. P. Sawyer believed that statistics of cases were of little value unless the test for the diazo reaction had been made. He said that nineteen out of twenty cases of typhoid would show the reaction, and that the value of a negative result was very great in excluding cases not typhoid, although the positive value was less, as the reaction is found in other diseases.

DR. L. B. Tuckerman said that all previous statistics are equally invalidated by the discovery of the diazo reaction, and yet symptoms are still accepted as sufficient to diagnose typhoid. He objected to considering typhoid fever as an intestinal infection, pure and simple, as the bacilli have been found in the urine, spleen and blood, even in cases where they have not been found in the alimentary canal.

Dr. C. W. Smith objected to the use of the word "abort" as applied to the early amelioration of symptoms. He advised the early use of laxatives to remove the excess of material in the intestines, and the better to prepare the way for the action of antiseptics.

CLEVELAND MEDICAL SOCIETY.

MEETING OF SEPTEMBER 11, 1896.

This was the first meeting after the summer vacation. A goodly number were in attendance, and a decided vigor was displayed in opening the new season.

Three members were admitted to the society, one of whom was Dr. H. C. Wood, of Philadelphia, who was

accorded honorary membership.

DR. LINCOLN reported a case of carcinoma of the nose. The tumor which was presented, as removed, was about the size of a horse-chestnut, was very friable and was removed in pieces. It was of the medullary variety and blocked one nostril completely. Had not given rise to any serious constitutional symptoms.

A fine specimen of the cancer was presented for microscopic examination, and was of interest to the special

workers in that line.

The doctor remarked that temporary relief was all that

could be hoped for.

DR. BAILEY reported a case of fracture of the humerus by muscular action at the upper part of the middle and third, which he stated was a rare condition.

DR. W. H. Humiston presented a specimen showing ovaries removed, illustrating a chronic case of degeneration which had resulted in the loss of health. Patient was making a good recovery.

The paper of the evening was read by Dr. D. S. HANSON, under the title "Intestinal Antisepsis in Typhoid

Fever."

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The doctor stated that it was his intention to deal with this subject especially in relation to the so-called Woodbridge treatment.

Five cases were reported, with four recoveries and one death.

The Woodbridge tablets were given and the customary purging of the bowels was obtained with no special

remission of symptoms nor shortening of duration.

With the patient who died, the treatment seemed to have but little or no power. Dr. Hanson remarked, with good authority, that few patients die from typhoid when the bowels remain constipated, and he could not see the object to be gained by purging the bowels while in such an inflamed and irritable condition. He was not favorably impressed with the method adopted in these cases, and seemed doubtful as to the special efficacy of antiseptics over other forms of treatment.

The paper was well prepared and was well received, calling out a full discussion from the members present.

DISCUSSION.

DR. LUCAS asked if the author of the paper had used nitrate of silver in any of his cases. He had used it with success, and gives ‡ gr. every 6 hours. Dr. Pepper, of

Philadelphia was quoted as his authority for its use.

DR. DUTTON: Mr. Chairman—We are all familiar with the symptoms in the early stages of typhoid, and know that before any indications of local lesions of the intestines are apparent, there are the plainest evidences of general toxæmia. The weakness, languor, headache, etc., plainly show that the virus of typhoid has already attacked the nerve centers, while as yet, and sometimes not at all, there is no discoverable intestinal disturbance, I would like to enquire then of those who claim that intestinal antisepsis is in any sense curative, in what respect it is so. Years ago, long before the discovery of the typhoid bacillus, intestinal antisepsis, combined with eliminative measures, was most thoroughly practiced by the use of mercurials and purgatives. Under that treatment, the mortality was enormous. The expectant treatment, or I may say negative treatment, shows much better results. How, then, do intestinal antiseptics act? What do they antisept? What chemical combinations, if any, do they form? Have we any intelligent knowledge as to what they do-or is our use of them and knowledge of them simply empirical? Do they neutralize the toxines of typhoid? Do they kill the bacilli which has already got in its work? Will those who advocate the efficiency of the



antiseptic method please enlighten us by answering these questions?

Dr. P. M. Foshay: Dr. Dutton throws down the gauntlet. Men who are doing surgery can have some positive knowledge of means and results, but I doubt if there is a disease, which is open to the absolute proof that Dr. Dutton demands for this treatment; and I do not think it is fair to demand of any new treatment that the proof should be perfect when the old treatments were adopted without any such proof. That the antiseptic treatment of typhoid fever is a valuable treatment. I think has been shown by the experience of a great many men, and that it depends upon a rational basis, I think all the members of the Society feel convinced. It is true that the administration of antiseptics has, by some observers, been found not to reduce the number of bacteria in the stools to a great degree, and yet it has been shown that we do reduce certain forms of bacteria very materially. The species that inhabit the large intestine are very hard to kill, while those of the small intestine and stomach are more or less within reach.

Dr. Dutton, for whose opinion I have a great deal of respect, says that the first symptoms of typhoid fever are those of the absorption of toxins. This is unquestionably so, but it does not invalidate the antiseptic treatment. fuel is being continually poured upon a fire that we wish to extinguish, the first rational thing to do is to stop putting on In typhoid fever, the bacilli are the fuel, and the natural eliminative process is barely able to keep up, at best, with the production of fresh toxins. So long as the bacilli live in the intestinal canal, so long the toxins are being produced to poison the body. While no one can look into the intestinal canal and see what is being done, clinical evidence seems to show that antiseptics do help to curtail the production of toxins.

Dr. G. S. SMITH said: "The value of intestinal antisepsis in the treatment of typhoid fever is still an unsolved problem, and much can be said, both in favor of

and against it.

I regret to say that my own experience has not warranted much confidence in this treatment. house-physician at the Rhode Island Hospital two years ago, intestinal antisepsis was given an honest trial, but without changing in any way our former results.

We know that the bacilli of typhoid multiply in the spleen, the mesenteric glands, and in the wall of the intestine, as well as in Peyer's patches. Furthermore, the bacilli are frequently not found in the stools until the close of the

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second week. The absence of the bacilli in the stools during the first two weeks cannot, therefore, be attributed with any degree of certainty to the antiseptic treatment. Indeed, when we realize that many forms of germs are not rendered inactive, even by irrigating with strong solutions of bichloride of mercury, and, furthermore, when we think of the dilution any antiseptic must undergo before reaching the seat of trouble in the intestine, it seems improbable that the treatment can be of any real service.

Dr. Osler says that no method of specific treatment or of antisepsis of the bowels has yet passed beyond the stage of primary laudation, and he testifies to the inefficiency of carbolic acid, iodine, and beta-napthol in such treatment."

Dr. Woodbridge asked what the true action of nitrate of silver was in these cases—was it antiseptic or otherwise useful?

Dr. Lucas replied that he did not think it acted especially as an antiseptic, but rather had a tendency to allay the irritation and inflammation.

Dr. J. T. Smith, of Collinwood, remarked that during an epidemic of typhoid at Stanford, Conn., statistics were given for fourteen cases of the fever treated with no medication other than water, and all recovered. Others were treated with protonuclein, which was probably about equal to water treatment, and recovered. It is difficult under such conditions, said he, to say what form of treatment is the best.

Dr. H. H. Powell mentioned a case in his practice, a lady, who eleven days before had complained of headache and other bodily pains, had coated tongue and a temperature of $101\frac{1}{2}^{\circ}$. Next day temperature fell to 101° . Had severe pain in head. Third day temperature $98\frac{1}{2}^{\circ}$. On fifth day patient was delirious.

On seventh day an abundant eruption came on abdomen, chest and limbs. Bowels moved twice a day. No distention. Pulse normal after second day. To-day she is rational.

It was a febrile case of typhoid. Have never seen a case so marked with the other symptoms before. There were many such cases during the Franco-Prussian war.

This patient's tongue was so thick that marked difficulty was experienced in talking. Two mornings, the

temperature fell to a point subnormal.

I have used nitrate of silver in the treatment of typhoid with excellent results. I do not believe much in antiseptics in these cases. Bismuth and salol may do some good—but I do not know. If they are satisfactory to our patients, that is something.

DR. ALDRICH: The case reported by Dr. Powell is the first I have heard of where the temperature is so low, and was attended with the rose-spots so well marked. There is a chance, of course, for a mistaken diagnosis in some of the

cases we read of. Was much interested in this case.

Dr. Hanson, in closing the discussion, stated that disassimilation is probably the cause of death in many cases, together with the resulting exhaustion.

The toxins of typhoid are absorbed into the system and show in the urine, and antiseptic treatment does show

a tendency to reduce or lessen their quantity.

DR. ALDRICH presented two very interesting cases of multiple disseminated sclerosis of the nervous system, attended by intention tremor, exaggerated reflexes of the knee and lower jaw. The eyes showed an atrophy of the optic discs.

DR. HENRY Upson was much interested in the cases of multiple sclerosis. Recalled several similar cases in his own practice, but none so well marked as those presented by Dr.

Aldrich.

DR. CRILE spoke of a boy whose case was presented by Dr. Aldrich, in whom it was believed that the offending factor was a tumor of the brain. The doctor spoke of the progress in successfully locating such tumors by means of our general knowledge of cerebral localization, and after a tablet of the skull is removed, by the use of electric needles.

DR. FRIEDMAN asked a question, answered by Dr. Crile,

and the discussion of cases was closed by Dr. Aldrich.

DR. W. H. Humiston reported the treatment and cure of an interesting case of pelvic abscess, with signs of general septic poisoning. Indican present in the urine, etc. The doctor mentioned a similar case treated by him last winter in which 110 ounces of pus was removed.

DR. ROSENWASSER: I do not favor operating on all cases of pelvic abscess, especially where good drainage can be established through the bowel, as such often recover

without a radical operation.

Dr. Crile asked when vaginal operation should be

preferred, and

DR. Humiston, in closing discussion, explained his basis for forming a decision as to the nature of the operation

required in a given case.

The President, Dr. Cook, announced that the regular quarterly meeting would be postponed for one month on account of arrangements with the speakers.

Adjourned.

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THE MEDICO-LEGAL SECTION

At its last meeting, held Sept. 17, 1896, considered the subject of "Hypnotism." Dr. John F. Hobson, in the leading paper, reviewed the history of its development from the time of Mesmer's observations and experiments to the present, and presented the theories now held by some of the leading authorities.

The prominent ideas advanced in the vigorous

discussion aroused by the paper were as follows:

The essential condition in the hypnotic state is the inhibition of various voluntary and involuntary nerve activities brought on by intense concentration of attention on a particular group of sensations. Thought centered in one direction is drawn away from others. Catalepsy is a precedent state to hypnotism. Auto-suggestion derived from the subject's training and habits of thought is effective in determining his acceptance of suggestion from without, so that a modest and innocent-minded person will not act immodestly or commit a crime under suggestion. Although a subject criminally inclined might be led by suggestion to commit a crime, yet in no case has there been success in attempting to establish hypnotism as a defense in court.

The idea of peculiar hypnotic power of one man over another is nonsense. Certain conditions, such as paralysis or hypnotism from fear, as in snake charming, are similar

phenomena and are explained by inhibition.

Certain other subjects are often confused with hypnotism which are not the same, such as thought transference, personal influence, social contagion, "contact with evil leads to evil," etc.

There seems to be something diabolical about contact with hypnotism in its study. Braid's only works of value are his earliest. It was so, too, with Charcot and Luys who were so severely arraigned by Ernest Hart.

THE CLEVELAND ACADEMY OF SCIENCE

Now appears to be a reality. The movement towards a federation of the various scientific societies of the city, inaugurated last spring by a general committee consisting of representatives of thirteen organizations, under the chairmanship of Dr. W. E. Wirt, has progressed to a point which promises a successful issue.

The object is to secure by co-operation a common habitation and home where all participating societies may hold meetings, together with other advantages, such as accommodations for libraries, various club features, etc.; in short to promote, by whatever means may prove desirable and feasible, the interests of the scientific bodies and their members. The detailed plans formulated by a sub-committee were presented to the general committee at a meeting held on Sept. 15, and adopted.

The plan provides for a stock company, capitalized at \$5,000, in shares of \$25 each. Each participating organization is entitled to one share of stock for each 25 members or major fraction of 25, the stock to be held in trust by a number of trustees equal to the number of shares to which the organization is entitled. The stockholders will form a board of directors in whose control the affairs of the

academy will rest.

The incorporators are the members of the sub-committee which formulated the plan of organization, consisting of Dr. Wm. E. Wirt, chairman; Mr. H. J. Davies, Mr. W. H. Searles, Dr. L. B. Tuckerman and Mr. H. L. Payne.

The following organizations have been named in

connection with the project:

Cleveland Medical Society; Cuyahoga County Medical Society; Medico-Legal Section; Cleveland Chemical Society; Cleveland Council of Sociology; American Institute of Anthropology; Civil Engineers' Club; Cleveland Chapter of American Institute of Architects; Cleveland Architectural Club; Electrical Club of Cleveland; Hahnemannian Society; Cleveland Chapter Archæological Institute of America; Western Reserve Historical Society; Cleveland Homeopathic Society; Cleveland Bar Association; Cleveland Society of Natural Sciences.

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THE GAZETTE is sent to every subscriber until ordered stopped. When directed to discontinue, at the time of subscribing, the journal will cease coming when time expires. CHANGES FOR ADVERTISEMENTS, or addresses, must reach us not later than the fifteenth day of the month, preceding issue to be corrected in the current number.



THE END OF VOLUME XI.

This number closes the Eleventh Volume of the GAZETTE. As far as the history of this journal is concerned, the most marked event of the year was the dissolution of the partnership in the paper which had existed between Drs. A. R. Baker and S. W. Kelley since 1885, when the publication was established. After all those years of united endeavor, Dr. Baker retired, and Dr. Kelley continued alone in the ownership and editorship of the journal.

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Some of the friends of the GAZETTE expressed fears that, to use Dr. Baker's metaphor, having lost one of its parents, it would materially suffer in its bringing up. We hope that a comparison of the first five with the last seven numbers of the volume will assure the solicitous that it is doing pretty well for a half orphan.

We do not mind confiding in the reader so far as to state that we have been to a fortune teller and learned that the GAZETTE is destined to not only sustain the honorable reputation of its past, but to go on improving until it is second to none in this country. Lest there be any mistake in trusting to fate we have made arrangements which justify us in promising that Vol. XII will be better than any which preceded it. As to what good things the editor has in store, the reader will find out from month to month. An assertion which we repeated last year and which passed unchallenged was this "That the GAZETTE publishes more original matter in proportion to its size, cost and character than any medical journal printed in the English language."

Notwithstanding this record, our department for Original Articles never before had such rich prospects of brilliant contributions as lie before us for the coming year. Our list of contributors will be much expanded and include some of the best medical writers in the world.

We have had the good fortune to gather about us a corps of collaborators of recognized ability and zeal, and their labor will become more and more appreciated as time goes on. Society Proceedings will be carefully reported, endeavoring to present briefly everything of permanent interest and value, and not filling up our pages with prolix or familiar matter merely because it was presented at society meeting. All the local societies will receive equal attention. Periscope and Among Our Exchanges will continue their valuable features. In interesting Correspondence, the GAZETTE has always been peculiarly fortunate. The Book Notices will be found honest and reliable, giving the reader correct ideas of the new publications.

Our Notes and Comments, we are told, are always enjoyed by readers, and we shall endeavor to make them useful as well as enjoyable.



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Editorial.

As to the editorial work, and whether it is ably or feebly done, is not for us to say. The reader must be the judge. We shall simply do our utmost to provide the best there is to be had, and spread it in as attractive a manner as possible upon our pages. We shall never hesitate to express our opinion upon professional matters. There will be no radical change of policy. We shall labor for the good of the whole regular profession, regardless of schools or societies, cliques or factions. The GAZETTE is completely independent of all these.

As to our point of view on the living questions which are interesting the profession, our old readers are pretty well informed, and new readers will have no trouble in finding out.

THE PUBLIC'S KNOWLEDGE OF MEDICINE.

We hear occasionally—usually through the lay, sometimes through the medical press, of the knowledge possessed by the general public of drugs and their action. The newspapers particularly are fond of boasting of their educating influence—of their popular explanations scientific subjects. It is true that the public is often (too often) regaled with garbled accounts of wonderful surgical operations, of marvelous discoveries in medicine; and still more frequently with symptoms of disease and more or less learned accounts of their pathology-ending with tales of cures made by the use of some infallible medicine. It has even been said that the lack of business which doctors over nearly the whole country have experienced during the past year, is due to self-doctoring by the intelligent public. Undoubtedly the people of this generation are more knowing than their ancestors in matters of sanitation, of the causes, nature and course of diseases, and of medication. Undoubtedly they are too fond, entirely too fond, of dosing themselves upon any occasion or no occasion, with whatever medicine or application they read or hear about.

It is a great pity that the newspapers do not confine their efforts in the medical line to plain lessons in hygiene, and preventive medicine.

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If the people were half as assiduous to keep well by sanitary living as they are to fill themselves with drugs, there would indeed be need of fewer doctors. But unfortunately the knowledge of drugs possessed by the people is only the little that is a dangerous thing, while their reckless self-confidence is astonishing. Not long since, a laboring man came home from his work with a sprained back. His good wife, rather than send for the doctor, herself essayed that role. She had heard that carbolic acid was a wonderful medicine, and proceeded to bathe the afflicted back with it, applying it with her hand. The treatment had not gone far when the doctor had two patients in that house.

Through the kindness of the druggist, we have been observing the home-made prescriptions that came into a neighboring drug-store, and have found it interesting. We have not only been gratified (?!) at finding some of our own prescriptions doing service for years, not only to the original patient, but to all his family and all their relations, but we have found the community rich in copies of prescriptions from various physicians throughout the city, beside innumerable receipts imported from foreign countries.

But they are not all copies of physician's prescriptions, nor even repeats, but originals, some of them peculiarly so.

As might be expected in this climate, there is a call for "5 cts. worth of Pudash for sore throat," and another for "3 ct. hore Hound Lousengers, for cold." The next specimen reads: "5 sents of glue, 5 flax seed, 5 black Ligress, 5 hour hound Candy."

One wonders whether these ingredients are all to be combined in one mixture, or whether the first two are to be used together externally and the last two internally. If for internal use it would be hard to choose between this and the next which calls for "10 cts. worth of Alcohol, 5 cts. worth Lickerish." Of course there is frequent request for a "few dose of quinine to take with whisky for grip." A very favorite prescription that! Another calls for "5 cts. worth Twinenine" without stating for what it is to be used. Quinine is one of the drugs most commonly used and abused by the people (and the profession?) Camphor, as a household



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remedy, is frequently called for. On one dirty scrap of paper in my collection, it is spelled "Canfer." "Perry Gorig" is also in demand. The spelling of these specimens is reproduced literally—it is a pity the writing cannot conveniently be. It is wonderful to think what pains have been soothed and what damage has been done by "Perry" and the drug which makes it potent. A mother sends a hasty messenger for "10 cts. hive surieup," which certainly should promptly "cut the phlegm," as they say. Here is a paper bearing a legend laboriously inscribed "5 ct. cabionsteomona" which being interpreted readeth—carbonate of ammonia. Somebody else wants "Assefittethe 5. C." which, to the best of our recollection, is not just as it appears in the Pharmacopæia, but probably spelled any other way 'twill smell as sweet.

Have you ever noticed what a hold upon the public mind is kept by any drug or herb mentioned in Holy Writ? or bearing any name found there? How much of the virtue ascribed to it lies in the medicament and how much in superstitious association?

There is something seductive in the very name Balm of Gilead; and if some of the newest products of the manufacturing pharmacy were as sure of lasting popularity as this one named from the spicy Orient, the company's stock would be worth millions. It is called for very frequently. One prescription in my possession reads "10% worth of Bamgelia root buds, 10% rock candy." The "root buds" may be hard to find, but the druggist will be equal to the occasion.

The druggist of to-day is a combination of alchemist, botanist, pharmacist, linguist, and Philadelphia lawyer. We do not know that he can transmute metals, but he can certainly get gold out of some very worthless articles, and it is said, can transmute one drug into another "equally good." We all know that he can read our writing after we have forgotten it ourselves.

There lies before us a slip of paper bearing characters which it would bother a photographic camera to reproduce or one would be tempted to have it done. The druggist says it spells "Pauder Ahlova," which is perfectly easy for him to translate into "powdered aloes."

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One might be led into supposing that the public had just been deeply engaged in studying "Ptomaines and Leucomaines," by Vaughan and Novy, judging by the constant demand for drugs to clear the primæ viæ. "Salts," "salts and seeny," castor oil, castoria, various brands of cathartic pills and compounds of herbs for making laxative teas.

Nothing is more frequently called for than "opening pills for opening of the bowels," "Ruburbe pills," "3 cents worth of compound Lickorice," or "10 cents of the tinture of Rubard." One person sent for "5 \(\nabla \) Rocal salce, 5 \(\nabla \) stick of liquors, 5 \(\nabla \) sulfer."

We veritably believe that if one were to collect a lot of live, healthy tumble-bugs, introduce them to the public properly through the newspapers as the genuine Scarabæus Egypticus, or Scavenger beetle of the Nile, recently discovered by Prof. Von Ebers of Germany, to be the most potent destroyers of the germs infesting the alimentary tract—that the intelligent public would recollect that it had heard something about them before, but had not till now been so thoroughly enlightened—would gobble them down with a wise blink as a toad does flies, declare it felt better, and, for due consideration, send in testimonials and photographs for publication.

One finds there is frequent demand in various styles of spelling for "All cox Pourisplaster" and "1—Bottle of Bronno Selzere" and also for "Diman Dise to color wollen greene."* There is also a steady trade in such cosmetics as "Vasiline" and "Carmeen" and for "Corte plaster Black." Whether "10 ct. Coachin Eal" is to be used to improve the color of a pale complexion or of festival lemonade we have no means of knowing.

We are glad the druggist was able to "give Barrer 10 cts. worth Incecets Powr" and supply another messenger with "5 cts. wirth of Grosup Supliment." May a wonderful spell aid in their operations!

It is not to be supposed that the people are acquainted only with such old-fashioned remedies as "Saferon Tea" or "5 cts. worth of catnub tea," or even "cammamile & pop-

*We wish it distinctly understood that we receive nothing whatever for editorial mention of these preparations.



pies." No indeed! they are better informed than that. Here is a prescription calling for "5 Ace Tannel 25 cts. quinine powder."

We have still further evidence that the public is not only advanced but is right up to date on the new remedies. Here it is in the shape of a note which reads "25 c. Salipyrin. How much can a person or a boy of 14 years take? for the Grippe." Ah, you say that is not an evidence of knowledge but of ignorance for the lay doctor does not know the proper dose. But let us ask how many doctors know the proper dose of all the new remedies?

Domestic medicine is for the most part practiced by the women of the house, and their prescriptions are not always as innocent as the following: "Giv willie 3 or 5 ct wirth of cresote or oil of smoke for tooth ache."

This may be for Willie's tooth or Willie's mamma's tooth and no harm intended, though the tooth be neglected and ruined. But what can be said when Willie's mamma sends to the drug-store for "10 c. Arrigot?" She means mischief. There are women with the heart of a Borgia in every community, who are ready for almost any crime provided only it can be done secretly. Not all these women are of the lower classes, so called. If one judged by the calls for abortifacients, one would suppose that comparatively few females in the country from the plantation negress of the South to the society belle of the North but was acquainted with the powers of cotton root and tansy. Some, ignorant of these drugs, keep up a futile bombardment of innocent embryos with pennyroyal pills, until some good sister gives instructions in the use of more powerful poisons or of mechanical means. More than one catheter and bougie is purchased under one pretense or another for anything but legitimate use. O, the public is getting pretty well educated in certain lines, there is no denying! Witness this, the last of our present collection, which was sent to the drug-store we are told, by "a woman whom you would never suspect." This shows what kind of preventive medicine is interesting the public most and is most practiced by the laity. Read it and ponder, for we shall attempt no further comment. "Please send me a large size of a man's save 25 ct. one."

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CLEVELAND'S FIRST ACADEMY OF SCIENCE.

In 1843 The Cleveland Medical College was organized as a branch of Western Reserve College. Several members of the faculty were greatly interested in the study of the natural sciences, and they found a number of kindred spirits among citizens engaged in other callings. At the suggestion of Dr. Kirtland a meeting was held in the council chamber, Nov. 24th, 1845, at which was organized the Cleveland Academy of Natural Science. At this meeting measures were adopted for drawing up a constitution and legally incorporating the Academy, and the first officers were elected as follows:

Pres., Jared P. Kirtland, M. D.; 1st Vice Pres., Sherlock J. Andrews; 2d Vice Pres., Charles W. Heard; 3d Vice Pres., William D. Beattie.

Curators, William Case, Hamilton L. Smith, Samuel St. John, Henry C. Kingsley, Rufus K. Winslow, Jared P. Kirtland, J. Lang Cassells, Charles Whittlesey. Profs. Kirtland, Cassells and St. John were, by the Constitution, made trustees for life. The names of 183 members were signed to the Constitution under date of December 23d, 1845. The Constitution was adopted as a charter and recorded under the act providing for the incorporation of religious societies.

An agreement was entered into, by which the Academy was given, rent free, the use of a large room on the second floor of the Medical College Building for a museum. The cost of furnishing this room was \$1000, of which nearly half was raised at a very successful fair given by the ladies. The museum was opened to the public twice a week and the faculty, students and officers of Western Reserve College were to have access to the collections for study.

A valuable collection, especially of geological and ornithological specimens, was gathered by both gift and deposit. Public lectures were given on alternate weeks and at regular meetings papers were read and questions of science discussed in a more informal manner.

The proceedings, so far as they could be secured from the records which had been preserved and the papers pub-

lished in various local publications, covering the period from 1845 to 1859, were published by "A Gentleman of Cleveland." A copy of this volume is in the possession of Case Library.

In looking through this volume, it appears, curiously enough, that, while medical men were so prominent in the organization and work of the Academy, there is scarcely a mention of any scientific question or fact relating, even remotely, to medicine. On November 28th, 1856, Dr. Theodatus Garlick exhibited under the microscope, specimens of human epidermis, mucous coating of human intestine and injected human kidney, also the Sarcoptis Scabici. This is the only distinctly medical topic found and the exhibition was merely incidental to the other work of the evening. Whether to the physicians the discussions of the Academy meetings afforded relaxation from the arduous duties of their daily work in which medical matters were tabooed, or whether they did not deem medical topics to have a place under science, is a question which cannot be answered here.

At about the same time the exhibition by Dr. Garlick, at a series of meetings, of the eggs and young of salmo fontinalis at various stages of development, showing anatomical structure and "blood corpuscles distinctly visible and well defined," was the only approach to the study of biology as we now understand it.

The inclinations of those members most active in the work of the Academy seem to have been largely in the direction of descriptive ichthyology, ornithology and geology, and valuable pioneer work was done in the study of our native fauna and flora.

F. K. S.

LEGISLATION ON VIVISECTION.

It was understood that during the recent meeting in Cleveland of the American Humane Society, the whole influence of that organization was to be brought to bear in favor of stringent national legislation against vivisection. Dr. Geo. W. Crile secured a hearing before the meeting for Dr. L. B. Tuckerman, who championed the cause of vivi-



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section in the interest of sciences. He took the ground that it was merely a misunderstanding on the part of the Humane Society of the real needs and the actual practices of vivisection, for if they were acquainted with the facts in the case, they would certainly not, as men opposed to cruelty and suffering, array themselves against scientific vivisection. He thought it a great pity that the two great humanitarian bodies, the Humane Society and the medical profession, who were laboring for the good of their fellow creatures, should misunderstand each other and work in opposition to one another. He averred that the making of laws never had and never would stop the progress of science, though it could most lamentably harass and delay it. But doctors would experiment; and even if laws were passed, they would in this country persist in spite of laws in trying a proposed new operation first upon a dog or some lower animal before attempting it upon a human being. They would do it even if they had to pay the penalty. He hoped the conditions could never prevail in this country which now obtain in Great Britain, which an Englishman had alluded to by saying: "O, you Americans are to be congratulated. You can make your experiments upon the lower animals while we Europeans have to make them upon charity patients."

After discussing at great length the necessity and the actual practices of vivisection, he proposed that a committee of three be appointed by the Humane Society to meet with a committee of the same number to be appointed by the American Medical Association at its next meeting, and frame a law which should regulate the use of vivisection in such manner as to avoid abuses and restrict its practice, while not preventing its employment in a proper way for necessary purposes.

A resolution of this nature was afterward adopted by the Humane Society and a committee appointed.



Columbus, O., Sept. 28, 1896.

SAMUEL W. KELLEY, M. D.,

Editor Cleveland Medical Gazette.

My DEAR DOCTOR:

I will endeavor to give you, as near as possible, some idea of the work which has been accomplished by the State Board of Medical Registration and Examination since its organization. There have been about 7100 certificates issued in the State up to date; there are yet on file in this office something over 300 applications which have not been passed upon by the Board: some on the ground that the colleges from which they graduated were not reputable; others on the ground that they had not produced evidence satisfactory to the Board that they were legal practitioners on the 27th day of Feb., 1896, when the new medical law was passed. Of those who are rejected, the majority have left the State or discontinued the practice of medicine; some have made application for reconsideration of their cases and are endeavoring to produce absolute proofs of their years of practice which will show that they were legal practitioners on the 27th day of Feb., 1896. As near as I can determine there are about 75 physicians in the State who have not made application for registration; the greater part of these being men who are practically out of the practice of medicine because of their advanced age. cases in which information is filed to the effect that parties are practicing medicine in violation of this law, investigations will be made, and, if just cause is shown, these parties will be prosecuted under the law.

It is the desire of the Board that they be assisted in this work by the profession all over the State, and that wherever any member of the profession has knowledge that the law is being violated, he will make complaint to this office at once, giving some tangible evidence upon which

the Board may act.

Thanking you for the interest you have taken in this work, I am

Very respectfully,

Frank Winders, Secretary.



THE QUESTION OF CASTRATION FOR ENLARGED PROSTATE.

Geo. W. Crile, M. D.

In a most instructive paper read before the American Surgical Association, and published in the current number of Annals of Surgery, the present status of the question is ably presented by Dr. A. T. Cabot, of Boston.

In the same journal, Dr. J. William White devotes a ten page editorial to a critical examination into the merits of Dr. Cabot's paper, whose conclusions are as follows:

- 1. In the matter of mortality the operation of prostatectomy has a slight advantage over castration. It seems probable, that with later statistics reflecting the last improvements in the technique of prostatectomy, this advantage would be further increased.
- 2. Prostatectomy has the further advantage that it allows a thorough examination of the bladder and of the discovery and correction of other conditions not before suspected. Stones are frequently removed in this way without adding to the gravity of the operation. In several reported cases of castration, the absence of improvement has led to the subsequent discovery of stones which have required other operations for their removal.

3. Prostatectomy has, on the other hand, the disadvantage that it confines the patient for a longer time, and that it is sometimes followed by fistula; this occurred in one

of the forty-two cases used in this paper.

4. It is too early to know whether any permanent loss of vigor follows castration when done on old men. The nervous effect which sometimes immediately follows the operation suggests a suspicion that with the testes the system may lose some tonic effect exerted by those organs.

5. The functional results of the two operations seem at present to be as nearly equal as possible, and the tendency to relapse shows itself in about the same proportion

of cases after either operation.

6. The reduction of the prostate after castration is largely due to a diminution of congestion. Later a degeneration and absorption of considerable portions of the gland may occur. The glandular elements are particularly affected by this atrophy.

7. Castration would seem to be especially efficacious in cases of large tense prostates when the obstruction is due

to pressure of the lateral lobes upon the urethra.



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Periscope.

8. Castration is of but little use in myomatous and fibrous prostates.

9. Prostatectomy has its special field in the treatment of obstructive projections which act in a valvular way to close the urethra. There is, however, no form of prostatic obstruction which a skilled operator may not correct by prostatectomy.

10. Prostatectomy is then applicable to more cases than castration, and especially to be selected when an inflamed condition of the bladder makes drainage desirable.

In White's editorial, he shows that the 18% mortality given by Cabot is properly reduced to 7% by eliminating deaths from causes other than the castration; and in comparing the mortality of castration with that of prostatectomy, Cabot remarks that in the latter, as in the former operation, the cases were sometimes in extremes. White considers the comparison unfair, inasmuch as castration being a much lighter operation, would be performed in cases in which no one would do a prostatectomy.

After reviewing the published statistics, Cabot says that he is inclined, with some diffidence, to advance the belief that the correct death rate in prostatectomy is certainly under 20 per cent, to which White replies, the number of cases is still too small, and the conclusions are directly contradicted by the "unpublished experience of many

operators throughout the world."

Also he had seen a few cases afforded but trifling relief, were much annoyed by supra-pubic fistula, and yet had been

published as successful.

White cannot accept the statement that "it is a common experience to see symptoms apparently due to the prostate disappear after the removal of a stone." "Litholapaxy," says White, "after castration in many cases of hypertrophied prostate, an operation infinitely easier and far safer than the same operation in such cases without preliminary castration. There seems no good reason in the great majority of cases for doing the two operations at the same time."

Alfred Wood recently collected 92 cases with a mortality of 9.78 per cent, which seems to confirm the belief originally expressed that castration *per se* ought not to have a mortality to exceed 7 per cent when cases are judiciously

selected.

Further critical analysis of the data at hand leads White to the conclusion that castration is a safer operation than prostatectomy. Further experience and more friendly criticism will soon apportion the ground between prostatectomy and castration.



BY L. B. TUCKERMAN, M. D.

The Tiersch method of skin-grafting in some of its modifications has, in the main, supplanted all the older methods, but it would seem likely to be in its turn superseded by still another method if experience shall bear out the claims urged by the author, DR. Z. J. LUSK, of Warsaw, N. Y., who began using it about a year ago. A cantharidal blister of the size of the grafts required is applied to some convenient spot upon the patient. When the blister has risen sufficiently, the cuticle should be carefully clipped around the edges and covered with moist, sterilized gauze. If now the edge of the gauze and that of the cuticle be caught together and the gauze be turned back, the cuticle will come off without wrinkling, lying upon the gauze. The proximal surface is then also covered with a layer of gauze, the whole secured at each end by pins and placed in a sterilized boric acid solution; when wanted for use the moisture is absorbed from the gauze by sterilized cotton, and the piece of cuticle is ready for cutting into grafts of proper Small grafts, not exceeding 1/2 inch square do best. They are best applied as follows: with a pair of common artery forceps the cuticle is caught up at one corner and a narrow strip an inch or so long is cut off and held with the free end resting where a graft is to be applied. about 12 inch long is clipped off and carefully pressed into the granulations. The free end is again applied from \(\frac{3}{4}\) inch to an inch from the first graft, and a similar piece is clipped off and pressed in, and so on till a suitable number of grafts have been planted. A layer of sterilized gauze, saturated with a mixture of balsam of Peru and Castor oil (fd. oz. i to fd. dr. i) is applied over the grafted surface, and over this, three or four layers of sterilized cotton, which are held in place with strips of adhesive plaster and finally covered with a roller bandage. With this form of dressing you can remove the cotton covering in three or four days, and ascertain the condition of the grafts without disturbing them, as the gauze keeps them well in place. The advantages of the method are: 1. The material is obtained from the patient himself, and without causing any considerable pain or discomfort, or running the risk of transmitting syphilis or other disease as may be the case where grafts are taken from another person. 2. The technique is simple. A general practitioner with a knowledge of antiseptics and with ordinary surgical skill can successfully carry it out. 3. Wounds of large

¹ Journal of American Medical Association, June 30th, 1896.



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size heal fully as rapidly and as perfectly as by any other method known, the skin produced being soft and pliable, with no keloidal ridges, and in many places so natural as to be scarcely distinguishable from normal skin. Carbolic acid has been long used by not a few of the profession as an injection into the sac of hydrocele after the sac has been tapped and the fluid drawn off, from ten to twenty minims of the 95% solution being the amount oftenest recommended. Dr. Victor H. Coffman, of Omaha, Neb., advocates the use of the acid in larger doses, and without drawing off the fluid.2 He uses a syringe holding one drachm. Inserting the needle into the superior part of the tumor and carefully guarding the superficial veins of the scrotum, the syringe full is injected forcibly into the sac. Should the tumor be excessively large, a second syringe-full is injected. After a couple of minutes the needle is slowly withdrawn so as to prevent the escape of fluid. The parts are mopped with alcohol to prevent the cauterization of the skin if any of the acids have accidentally escaped, a little vaseline is applied to the surface and a dressing of gauze is put on to protect from As there is no pain, the patient can be allowed to go about his occupation. Within twenty-four hours a slight reaction follows, which lasts from two to five days, and the size of the tumor gradually diminishes in nearly every case. Should the tumor fail to shrink repeat the injection and in a month all traces of enlargement will have disappeared. The doctor further says: "The most numerous class of patients I have treated for this condition or disease are They come to my office. I have injected them with the acid. They have gone to their homes immediately, done their work as usual, without complaining of any inconvenience, and within a few weeks are surprised that the swelling has entirely disappeared." Housemaid's knee he also treats in the same manner, injecting first a drachm, and then in five days, half a drachm more if necessary, which necessity occurs in about one-third the cases. The inflammatory action continues for a few days, swelling and soreness subside within a fortnight, and in a month's time the tumor has disappeared. Into Ganglia he injects from five to ten drops of the acid with an equally favorable result. Two to five drops of the liquid carbolic acid injected with a fine needle into the centre of a tuberculous gland will create slight inflammation resulting in the softening of the gland followed by absorption without leaving a trace of thickening.

Most of us, taught by the authorities, that active treatment of herpes zoster is futile, content ourselves with miti-

² Western Med. Rev., July 15, '96.

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gating its more disagreeable symptoms as best we may and letting it run its course. Dr. A. N. Ohmann-Dumesnil claims that by proper local and constitutional treatment we can not only mitigate the symptoms, but can shorten the course of the disease as well. His internal remedy is arsenic; his external application is cotton dusted freely with a drying, analgesic powder. He prefers campho-phenique, or a powder composed of pulv. camphor, oz. ij; bismuth subnit. oz. iv; cretae prepared, dr. i.; applied twice daily. The arsenic may be used in the form of Fowler's solution, but in the form of the Asiatic pill (acid arsenios, grs. 20; pulv. pip. nig., grs. ij; ex. gentian, q. s.) taken after each meal the remedy is longer borne, and arsenical dermatitis, and other untoward effects are less likely to appear. Aural Vertigo, more commonly known as Meniere's disease, opens another field for the use of pilocarpine to increase the demand and still further raise the price of that useful but somewhat expensive drug.4 The recent monograph of Dr. Fraenkel-Hochwart, seems to show pretty conclusively that the complex and distressing symptoms are due to an irritation of the vestibular and cochlear branches of the auditory nerve, often traceable to irritation of the labyrinth set up by middle-ear disease, but not infrequently due to functional disorders alone. In the form complicating chronic middle-ear disease, pilocarpine seems to be the most effective remedy hitherto employed. Dr. Lemairey, 5 cites one such case where the vertiginous attacks developed on the basis of a chronic middle-ear disease involving both ears. After other remedies had been tried for a week a 1 per cent. solution of nitrate of philocarpine was injected subcutaneously every day, in dose sufficient to produce sweating and salivation. For about two hours after the injection, i. c. until after the "sweat crisis," the patient was kept in bed. Besides the physiological action of the pilocarpine on the sudoriporous, salivary and renal glands, a progressive improvement took place regarding the vertigo. In fifteen days he was able to go about the wards, and in fifteen more he left the hospital practically cured.

³ St. Louis Medical and Surgical Journal, Aug., 1896.

⁴ Med. Rec., Aug. 8, '96.

⁵ Loc. At.



PARK'S TREATISE ON SURGERY. A Treatise on Surgery. By American Authors. Edited by Roswell Park, M.D., Professor of Surgery and Clinical Surgery, Medical Department, University of Buffalo, Buffalo, N. Y. In two very handsome octavo volumes, comprising about 1600 pages, with about 800 engravings, largely original, and about 40 full-page plates in colors and monochrome. Volume I, General Surgery and Surgical Pathology. Volume II, Special Surgery. Price per volume, cloth, \$4.50; leather, \$5.50. Net. Lea Brothers & Co., 1896.

The first volume of this treatise, dealing with general surgery and surgical pathology is issued, and a beautiful book it is. It contains 356 engravings and 21 full-page plates in colors and monochrome. These are not mere "chromos" to sell the book to the unobserving, but carefully executed engravings which vividly illustrate the text, and many of them are original. The importance of bacteriology has been recognized, but it has not been allowed to crowd out the practical art of surgery which after all most interests the great mass of the profession. This, the first volume, treats of surgical pathology, the general principles and theory of surgery, with the surgery of tissues and tissue systems, leaving the second volume for the surgery of

regions and organs.

Perhaps we cannot do the reader a better service than in giving the names of the authors of Vol. I with the subjects upon which they have written. The chapters upon hyperæmia, surgical pathology of the blood, inflammation, ulcers and ulceration, gangrene, auto-infection, the surgical fevers and septic infections, surgical diseases common to man and the domestic animals, shock and collapse, scurvy and rickets, poisoning by animals and plants, acute intoxications, cysts and tumors, and surgical diseases of the osseous system, are by the editor, Dr. Roswell Park, of Buffalo. The chapter on syphilis is by Dr. John A. Fordyce, of New York. Gonorrhea and its sequelæ is from the pen of Dr. Wm. T. Bellfield, of Chicago. Control of hemorrhage, abstraction of blood, paracentesis, counter irritation, and minor surgery and bandaging, burns, scalds and frost bite, are handled by Dr. John Parmenter, of Buffalo. The important chapter of anesthesia and anesthetics was written by Dr. Hobart A. Hare, of Philadelphia. Surgical diagnosis was prepared by Dr. Chauncy P. Smith, of Buffalo. An important little chapter by Dr. Edmond Souchon, of New Orleans, gives instruction on the methodical report of a surgical case. Part IV which treats of wounds, gunshot wounds, processes of repair, treatment of wounds, antiseptics and asepsis, is all by Dr. Charles B. Nancrede, of Ann Arbor. Dr. Wm. A. Hardaway, of St. Louis, has the

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chapter on surgical diseases of the skin, and Dr. Herbert L. Burrell, of Boston, on the muscles, tendons, and tendon sheaths, bursæ and fasciæ. Injuries and diseases of the lymphatic vessels and nodes was entrusted to Dr. Frederick Henry Gerrish, of Portland, Maine. Dr. James Holloway, of Louisville, treats of the surgical injuries and diseases of the veins, while the similar chapter on the arteries (including aneurism) is by Dr. Duncan Eve, of Nashville. Ohio is represented by Dr. Joseph Ransohoff, of Cincinnati, who has the chapters on injuries and diseases of the joints and joint structures, and on operations on joints. Fractures and dislocations are by Dr. Henry H. Mudd, of St. Louis.

We notice that in the announcement of the second volume, which is soon to appear, Cleveland is to be

represented by Dr. Charles B. Parker.

The book before us is not only ably written, but it is ably edited. The various authors have been kept strictly to their subjects and their separate labors blended into one harmonious whole. The repetitions and incongruities sometimes seen in this class of books, are conspicuous by their absence.

Park's Surgery will take high rank as a text book, and

will be the valued counselor of many a practitioner.

Anatomy, Descriptive and Surgical. By Henry Gray, F. R. S., Lecturer at St. George's Hospital, London. New and thoroughly revised American edition, much enlarged in text, and in engravings both colored and black. In one imperial octayo volume of 1239 pages, with 772 large and elaborate engravings on wood. Price of edition with illustrations in colors: Cloth, \$7.00; leather, \$8.00. Price of edition with illustrations in black: Cloth, \$6.00; leather, \$7.00. Lea Brothers & Co., Publishers, Philadelphia and New York, 1896.

There is no way to make anatomy easy for the student. The compendiums and essentials, and vest pocket treatises, etc.. (most of which after all are founded on Gray) may make the study seem simpler by omitting the greater part of it. But when one wants to look up a point clearly and thoroughly, he generally has to go to the old standby. Looking over this edition we wish it had appeared in our student days. It certainly makes the study as easy and attractive as may be.

This edition has been thoroughly revised by American anatomists and certain sections have been rewritten, namely those on the brain, the teeth and the abdominal viscera. There is also a good deal more surgical anatomy introduced, and every opportunity is taken to point out the bearings of anatomy to practical surgery. One notices also some new illustrations which did not appear in the 13th edition.

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"Gray" bids fair to be the favorite anatomy for the next, as he has for the last thirty-eight or forty years.

Typhoid Fever and its Abortive Treatment. By John Eliot Woodbridge, M. D., Member and ex-President Mahoning County, O., Medical Society; Member and ex-Vice-President Ohio State Medical Society; Member of Mississippi Valley Medical Association; Member of Ninth International Medical Congress; and Member and Trustee of American Medical Association, etc., etc. The Cleveland Medical Publishing Co., 48 The Arcade, Cleveland, 1896.

In this book of 368 pages, Dr. Woodbridge presents the subject which has become familiar in connection with his name for some years past. Our space does not allow an extended discussion of the subject; but readers will be interested with a short description of the book itself and with a few impressions upon its cursory examination. an introduction in which the author states his position with regard to the subject and the promulgation of his views, he proceeds to define typhoid fever, giving quotations from Murchison, Hutchinson, Harley, Von Gietl, and others, and several pages of synonyms from the classic work of Murchison. Geographic distribution, causes, and incubation complete this chapter. The next 200 pages are devoted to a reproduction of various papers which Dr. Woodbridge has read before medical societies in the past. For instance, the first, "Can Typhoid Fever be Aborted?" was read before the Mississippi Valley Medical Association, October, 1893. Two subsequent chapters bear the same heading, being papers read before the Mahoning County Medical Society. The one on "Typhoid Fever" was read before the Buffalo Medical Club. Other titles are: "Further Reports of the Abortive Treatment of Typhoid Fever," "Typhoid Fever in Children," "Reports on Typhoid, continued," etc., etc. These papers are reproduced, the author says, for the reason that the reprints are exhausted, though still frequently called for, and because, it was hoped, having been read and discussed at medical societies, they might have more weight with the profession. We presume that these papers may be taken also as exhibiting the growth of Dr. Woodbridge's views as now presented.

The essays are followed by chapters on Diagnosis, Prognosis, Prophylaxis, Treatment, Typhoid Fever in Children, Diet, Relapses, Complications and Sequelæ.

Dr. Woodbridge's belief is that every uncomplicated case of typhoid fever can be aborted if proper antiseptic treatment be instituted at a sufficiently early stage of the malady. He does not claim that the disease can be aborted

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when the treatment has been too long deferred. He claims therefore that uncomplicated typhoid should never cause a death. He avers that in every instance he is able to abort the disease if allowed to institute the treatment on or before the eighth day, and in a large percentage of cases, if before

the tenth day of the sickness.

To show what he considers aborting a case, we will give the figures shown on a chart (p. 216) which exhibits the average temperature in 122 cases. Of these cases, one was discharged on the fifth day of treatment; one on the sixth; four on the seventh; two on the eighth; nine on the ninth; four on the tenth; seven on the eleventh; fifteen on the twelfth; four on the thirteenth; fifteen on the fourteenth; eighteen on the fifteenth; nineteen on the sixteenth; eight on the seventeenth; three on the eighteenth; three on the nineteenth; four on the twenty-first. The remainder reached the normal temperature on the twenty-second day. The highest average temperature was 1031° on the third day, which declined steadily to 100° on the ninth day, rose a fraction next day, then dropped to 9810 on the twelfth day, never after reaching above 993.

His treatment consists in the use of the following

formulæ:

No. 1. R Podophyllin, Hydrg. chlor. mit. Guaiacol carb. aa 16 gr. Menthol.

Eucalyptol, 9.5.

M. Make one tablet.

No. 2. R Podophyllin, Hydrg. chlor. mit. 16 gr. Guaiacol carb. Menthol, Thymol, aa is gr.

Eucalyptol, 9.5.

M. Make one tablet.

No. 3. R Guaiacol carb. Thymol, Menthol, ½ gr. Eucalyptol, 5 minims.

M. Make one capsule. Sig. One every 3 hours.

The first tablet is given until five or six free evacuations of the bowels have been secured, which will usually be during the second period of twenty-four hours. The antiseptic effect only is desired for the first day. One or more tablets of the second formula are then given every one or



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two hours for a few days, at first as freely as possible, avoiding excessive laxative action and ptyalism, and the dose and frequency then reduced so as to lessen gradually the frequency of bowel movements to one or two a day, as the temperature approaches normal. About the fourth or fifth day, the third formula is begun, each dose of medicine being followed by a large draught of distilled or sterilized water, or a laxative or diuretic mineral water if indicated.

As to the effects of the treatment we cannot speak, having no experience with it. It might show greater wisdom if all who have been free and swift to condemn it would first give it a careful investigation. Our impression is that if Dr. Woodbridge's logical bump were as great as his persistence and enthusiasm, he could have made a better argument than he has from the evidence at command. Besides this, whether intentionally or unintentionally, he has unfortunately for the advancement of his ideas, in the heat of debate, excited the antagonism of many who would have willingly heard a new doctrine if scientifically and moderately stated. However, we should learn to estimate facts quite independently of the method of their statement and apart from all personal feeling. A little time and cool and quiet clinical study will soon evolve the truth.

We bespeak for Dr. Woodbridge's book an extended

sale and for his views a fair critical consideration.

HEALTH IN THE HOME. A Practical Work on the Promotion and Preservation of Health, with illustrated prescriptions of Swedish Gymnastic Exercises for home and club practice. By E. Marguerite Lindley, Lecturer on Health Culture, New York. Published by the author. Murray Hill Hotel, 1896.

A great many books have been written attempting to simplify and popularize the main facts of anatomy, physiology and hygiene, and make them understood and useful in the home. Some of these books are weak and worthless, others erroneous, presumptuous, misleading and consequently harmful. Still others ill-balanced in the selection of topics, little short of prurient in many instances, perhaps amateurish and trifling, or altogether disgusting to a physician.

This book is none of these. It is sound and clean, accurate and practical. The subjects have been well selected and arranged, and well written. No physician need hesitate to recommend it to his patrons. It will save him many words of explanation and direction upon matters of physiology, exercise and healthful living. A few little slips need not be mentioned in view of the general excellence of the book.



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A SYLLABUS OF MATERIA MEDICA AND PHARMACOGNOSY, with especial reference to the methods of prescribing, compounding and administering medical substances. Intended as a handbook for students, pharmacists and physicians. By Henry Finkelpearl, Ph. G., M. D. Demonstrator of pharmacy in the Western Penn. Med. Coll., Pittsburg. Press of W. T. Nicholson.

The character of this book is sufficiently indicated in the title. It will be found convenient by those who believe in the use of Syllabi and need one upon this subject. The author's work deserves better treatment at the hands of printer and binder.

THE ANIMAL TUBERCULOSES and their relation to Human Tuberculosis. By Ed. Nocard, Prof. of the Alfort Veterinary College. Translated by H. Scurfield, M. D. Ed. D. Ph. Camb., New York. Wm. R. Jenkins, 851-853 Sixth Ave.

As the translator says, "The chief interest to doctors of human medicine in Prof. Nocard's book lies in the demonstration of the small part played by heredity, and the great part played by contagion, in the propagation of bovine tuberculosis."

In the appendix a short description is given of the plan used by Prof. Bang in Denmark of protecting cattle from infection. It has been demonstrated that a healthy herd can be bred from an infected one.

Tuberculosis is described as it appears in cattle, in the pig, the horse, the small ruminants, the dog and cat and in birds. There are sections on Tuberculin and diagnosis thereby. 143 pages.

THE AMERICAN ACADEMY OF RAILWAY SURGEONS. Report of the Second Annual Meeting. Edited, R. Harvey Reed, M. D., Chicago. American Medical Association Press, 1896.

This gives the proceedings of the meeting, and the papers read thereat. Illustrated with portraits of the officers and cuts.

EIGHTEENTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH of the State of Illinois. Being for the year ended December 31, 1895, with an appendix containing the Official Register of Physicians and Midwives, 1896. Springfield, Ill.

The report traces the work of this important and efficient Board during the year indicated, and is a valuable repository of facts, in convenient shape for reference.



Dr. Eugene G. Carpenter has taken offices in the New England Building.

Dr. Wm. T. Corlett writes from Aix-la-Chapelle that the London Dermatological Congress was a great success. He expects to return to Cleveland by October 1st.

Dr. F. C. Taylor, who has been laid up for the last three months with inflammatory rheumatism, is now going about on crutches. He expects to be quite well in a few weeks more.

The American Electro-Therapeutic Association held its sixth annual meeting at Boston on the 29th and 30th of September and 1st of October and discussed an elaborate program.

The Medical Department of Western Reserve University opened its session on September 23d. President Thwing presided. The principal address was made by the Dean, Dr. H. H. Powell.

Dr. G. U. Bennett writes from Kingsville, Mo. "I have just received from the binder five volumes of the GAZETTE. This makes ten volumes I have bound. I think a great deal of the GAZETTE, more and more during the last few months."

The Cleveland College of Physicians and Surgeons began its session on the 16th. Dean Nelson of the Literary Department (Ohio Wesleyan University) made the principal address, followed by Dean Parker of the Medical Department.

The Medical Society of Berne has inaugurated a plan for the suppression of press notices of suicides, as it has been observed that epidemics, so called, come from "suggestion" acquired through printed accounts of them.

"At the Opening Session of the University Medical College of Kansas City," writes one of our western correspondents, "nearly all the applicants failed to pass the examination required by the state. This I think is a step in the proper direction. I hope the good work will proceed."

The Insomnia of Neurasthenia. Monin (Independence Med., July 1) says the following draught is well borne for a long time:

R Paraldehyde.................38 gr. Fluid extract of piscidia....75 gr. Syrup of cherry-laurel.....750 gr.

M. Sig.—The whole to be taken at once in a cup of orange flower water.



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Dr. Handerson's Article in this number is the result of careful study and will well repay a studious perusal. We trust readers will appreciate the enterprise of the GAZETTE in illustrating it handsomely. Like many other articles which appear in this magazine it has not even been read at any medical society, but first seeks the attention of the profession through this medium. It is open for discussion and the pages of the GAZETTE are open to express the opinion of any reader who cares to be heard upon this or any other topic of interest to the profession.

Thomas Bartlett of Vermont, noted for the highflown quality of his oratorical displays, once arose in Congress to indorse a measure that had just been vigorously attacked. He began to declaim impressively, "Sir, were it not for the rules of the House, I would pour upon the opponents of this measure the phials of my wrath"—He got no farther. Mr. Polk of Tennessee was upon his feet in a moment, moving with every appearance of eager interest, "that the rules be suspended, and the gentleman allowed to pour!" Such a disconcerting burst of laughter followed that all possibility of "pouring" was over in an instant, and the unfortunate orator could only subside wrathfully into silence and his seat.—Ex.

Moody's Magazine of Medicine is the alluring and alliterative title of a new one born in August, at Atlanta, Ga. It is called a medico-surgical (and they might have added artistico-literary) magazine. It is edited by Ralcy Husted Bell, M. D., with a department of Gynecology and Obstetrics, edited by Virgil O. Hardon, M. D., whose portrait appears on the cover. There is also a fancy frontispiece by a special artist, whose portrait also appears, and portraits of the contributors. It contains also a Woman's Department, a Miscellaneous Department, a Railroad Department and a lot more things. It is published by a company, capitalized at \$25,000, and is quite an undertaking.

"A Convention of Nurses, representing training schools and alumnæ associations, met at Manhattan Beach Hotel, on the second of September, to organize an association of nurses which shall cover the United States and Canada. A constitution was drafted which will be submitted to the different bodies represented, for their ratification. The object of the proposed association is to unite, protect, and elevate the profession of nursing, and in drawing its outlines those of the medical associations have been to some extent



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copied, and the preamble of the American Medical

Association largely drawn upon."

The training schools and alumnæ associations included in this convention were: The Royal Victoria; the Toronto General; the Massachusetts General; the New Haven; the Presbyterian, of New York City; Bellevue; the New York; the Brooklyn City; the Orange Memorial; the Pennsylvania; University of Pennsylvania; the Philadelphia; the Johns Hopkins; the Garfield; the Rochester City; the Illinois; the Farrand and St. Luke's, (Chicago.)

"Uterine Fibroids Complicated by Pregnancy, with Report of Three Cases," was the title of a paper read before the American Association of Obstetricians and Gynecologists at Richmond, Va., Sept. 23, 1896, by Dr. M. Rosenwasser, of Cleveland, O.

The writer showed that, previous to the advent of abdominal surgery and of aseptic midwifery, the majority of mothers and of children died during or after labors complicated by fibroids. The same mortality rate prevailed whether the labors were terminated naturally, or by normal or instrumental aid. Since the new era the results have materially improved as to the number of mothers and children saved. The number of recent cases hitherto reported is, however, insufficient to formulate fixed rules. Each case must be treated on its own merits. He reports three cases in detail.

The first was a multinodular fibroid complicated by a pregnancy of five and one-half months. The rapid growth of the tumor and the suffering of the patient demanded interference. Supra-pubic hysterectomy was performed. The patient died septic; infection being due to a preventable cause.

The second case was seen when pregnant four months. There being no probability of hindrance in the pelvis during labor, the case was allowed to go to term and was delivered of a living child. The tumor subsequently causing severe hemorrhages and pain, hysterectomy, nine months later, was followed by prompt recovery.

The third case was pregnant four months when seen. The tumor occupied the lower uterine segment. The cervix was displaced behind the pubes. Abortion had already been unsuccessfully tried. The patient was unwilling to delay until after viability of the child. Supra pubic hysterectomy was followed by ideal recovery.

Photographs of the specimens of the first and third

cases were presented.



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The Lumbar Enlargement of the Spinal Cord. At the recent meeting of the Mississippi Valley Medical Association a paper, with diagram and table, by L. Harrison Mettler, of Chicago, was presented, in which the amenability of the lumbar part of the cord to surgical interference in a great variety of diseases was insisted upon. After a detailed account, based upon some original investigations of the topographical anatomy of the lumbar enlargement, the author affirmed that with such lesions as fractures, hemorrhages, abscesses and well-defined tumors, trephining is not only justifiable, but is absolutely called for. Before the operation is resorted to, however, a localization diagnosis must be made and made with great accuracy. Our knowledge of the motor, sensory and reflex centers in this part of the cord, is to-day sufficiently definite to make such a diagnosis. A discussion of these centers in relation to symptoms constitutes the major part of the author's essay.

A transverse section of the spinal cord in the lumbar enlargement presents the same picture that a transverse section of any other part of the cord does, with the exception, however, of the absence of the cerebellar tract, the column of Clarke and the direct pyramidal tract. The general functions of each of the remaining tracts are pretty well known, but for the purpose of localizing well defined lesions in the lumbar cord are of minor value only, or are of value chiefly when the lesion is a sytematic and continuous one into the contiguous parts of the cord. A knowledge of these tracts and their physiological functions is important, however, in diagnosing the anterior, posterior or lateral localization of a tumor or other defined lesions.

For surgical purposes the segmental (the cord being regarded as a series of superimposed segments with attached nerve-roots) localizations are our best guides. In regard to motor disturbances such as tumor, spasm, paresis and paralysis, as symptoms of segmental involvement, too much stress should not be placed upon the mere anatomical subdivisions of the musculative of the lower extremities. Movements or groups of muscles rather than mere individual muscles are represented by centers on the cord. Sometimes a muscle has a double function at the gluteus maximus; and probably very few muscles ever act alone or without a simultaneous action of their antagonists. The mere location of a muscle in relation to neighboring muscles affords no clue as to its probable central representation, as for instance, the sartorius which is in relation with the extensors of the knee and is represented in the third lumbar segment, but which generally escapes when the exten-



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sors undergo atrophy. The ilio-psoas is a single muscle in function but is represented by a group of cells which extend through the second and third lumbar segments. It is probable also that many of these centers of the cord are brought into association and corresponding activity by connecting fibres. All of which goes to show that the mere anatomical divisions of the muscles are not to be too rig-

idly considered in making a localization diagnosis.

The sensory disturbances, such as hyperæsthesia, parasthesia and anæsthesia, are not always so pronounced as indications of cord lesions as the motor disturbances, but when they are well marked they are apt to be more definite and decisive as a means of making a segmental localization diagnosis. Starting with the perinæum, the area of anæsthesia gradually enlarges as the lesion travels upward in the lumbar cord. This is illustrated in the author's accompany-The area of insensibility always includes the ing diagram. genitals, perineum and anus. The centers for the control of the bladder and rectum are usually affected together and appear to be localized in the last two segments of the cord. The sexual center is in all probability associated with them. Certain vasomotor and trophic symptoms are not infrequent in myelitis of the lumbar cord. It is only in gross and extensive lesions as a rule that these symptoms appear because they are dependent upon injury of the central gray matter just back of the central canal.

In spite of the extreme difficulty in differentiating a lesion of the cauda equina in many cases from one of the cord with the related nerve roots passing through the cauda, some recent observations hold out the hope that some day it

will be possible in all cases.

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Thus it is shown that the lumbar enlargement affords the best location for surgical interference; its localizing centers are quite accurately known, at least enough so today for purposes of surgical diagnosis; and in many instances, the character, progress and situation of many of its lesions can be determined by its localizing symptoms.

Medical Mission Work in China.—Through the kindness of the surgeon in charge, Dr. J. H. McCartney, (Med. Dept. W. R. U. '90), we are in receipt of the fourth annual report of the General Hospital of the Methodist Episcopal Church at Chungking, China. A few extracts from this report may be of interest to our readers.

"Riot! Riot! has furnished the topic for conversation

a greater part of the past year.

In the midst of the greatest excitement occasioned by the riots in the surrounding country, we had the privilege

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of receiving into the hospital the eldest son of our Hsien magistrate, the father a native of Fu-Kien province, in which province it will be remembered the cruel murder of our English brethren took place last summer. He remained with us nearly a month, and we are happy to report, left cured. When the father was transferred to another place, he presented us with a large pien, twelve feet long and about five feet wide, finished in the finest black lacquer and gilt lettering.

The board was brought to the hospital, escorted by the former patient, flags flying, bands playing, and amidst a

great explosion of fire crackers, presented.

Soon after the excitement occasioned by the riots had subsided, we were called to attend Li toa-tai, the governor of Eastern Szchuan, whose name has been prominently before the world since the riots here, but not in the way many other officials have been. He proved himself the true friend of the foreigner, and if it had not been for his untiring energy, we most certainly would have suffered the same fate as our Chentu brethren. The worry and over-work occasioned by the riotous state of the city and surrounding country proved too much for his already over-worked and feeble constitution. His mind became unbalanced, and for over a month he was watched for fear he would attempt to take his own life.

After going on in this way for several weeks, I was called (by the advice of one of the foreign officials) and asked to take charge of the case. As long as he remained in the yamen as Tao-tai, we could do nothing with him, on account of his attendants refusing to carry out our

orders, and we gave up the case.

As soon as the new Tao-tai reached here, he was removed to other quarters and again invited us to see what we could do with him. We refused to have anything to do with the case unless they would allow a foreign nurse to stay in the yamen and see that all directions were carried out. They readily consented to this, and Messrs. Vardon and Williams went to live in the yamen. After the first two weeks he began to improve, and within two months was so far recovered as to be able to return to his home in Kuei Chau.

They were profuse in their thanks. And may we add we were happy to have been of any service to the one who had befriended us. We consider this very remarkable that at this time they should invite a foreigner to take charge of the case, and permit two foreign missionaries to reside in the yamen. They have already made several presents of

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costly embroidery and we are told that a present of silver to the hospital is forthcoming, until the present year we had met with but one calculus, but during the year three cases presented themselves for operation, all over fifty years of age.

The first case who had the M. A. or gegren degree came from the border of Kuang Si and returned happy after presenting the hospital with a pien. The others were like-

wise successful.

Another patient from the salt-well district, on his way to Pekin for the examination of Han Ling, the highest degree given in the empire, came to us on account of an ugly scar which greatly disfigured his face.

An operation was done and the face restored to its natural beauty. The man continued on his way happy, took the examination and received the only degree granted

in the province of Szchuan.

The instruction of the medical students has been one of the most delightful and interesting parts of our work. Five young men have been under instruction during the year, and we are adding two more at the beginning of new year. Three of these five will have come up for their final examination before the close of '96. The work done by the three senior students has been of the highest order, they have made frequent itinerating visits into the country and have dispensed the healing from the word of God to hundreds of people as well as healing to their bodies.

Nearly all the opium poison calls, which have been more frequent than previous years, have been attended by the students, in fact I do not remember of once answering a night call in person during the year. They have also answered calls into the country where it required their absence several days, and where I could not go, on ac-

count of being the only medical man in the city.

Calls into the city have been more frequent than former years, which together with our foreign practice have kept

me busy from early morning until late at night.

The past year has been the most unhealthy we have experienced in Chungking. Nearly every foreign resident, (who number nearly sixty) has been ailing, and we are sorry to record one death; cause, heart-clot, nine days after artificial delivery of twins for Eclamptic convulsions. For the first time we met with Typhus fever, and during the latter part of the year experienced an epidemic of Diphtheria.

We were gladdened by the news that we were to have another Doctor for the Chungking work, but within a few

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months from the day we received the news we were informed he had been reappointed to Korea, and this work which has needed him for so long has been deprived for another year. We hope our friends at home may see fit to send us another in place of our brother who has been sent to Korea.

The woman's work is greatly in need of a lady physician to begin work in this needy field. And we trust our sisters may see their way clear to send us a qualified repre-

sentative for this work soon.

Case No. 2.—The patient a farmer, fifty-six years of age, had been suffering great pain both at micturition and other times for one year and a half. He smoked a small quantity of opium on account of pain. A small stone was diagnosed with the Sound and after the ordinary preparations the left lateral operation was done, and after great difficulty three small stones and one red pepper were extracted. The two small stones were attached one to either end of the red pepper, which unluckily was broken in twain during the extraction. A silver female catheter was inserted 48 hours for drainage. The stones with the pepper weighed 140 gr.

The pepper was over 1 inch long but was perfectly preserved. The wound was entirely healed in less than four weeks. He could give no history how the pepper got into the bladder. The natives who heard it, explained it by the fact that he had swallowed a whole pepper, but the idea which we have is that when a child he stuffed the pepper into the penis, and it remained there until it was extracted over fifty year after, and would have remained until his death if the stones had not formed. We take this opinion because he would most certainly have known it if it had been put in (for any cause) in later years, and on account of this we ascribe it to childhood.

If put in so long ago, why had not the pepper given trouble long before? As far as I can find by reading up on the subject, this case stands alone for uniqueness. If there has been another, I should be pleased to hear from any

person who has met with a similar case.

Case No. 5.—Lipoma. The peculiarity of this case was the rapidity of its growth and location. I have neither heard nor read of a Lipoma occurring in the position occupied by this growth. The growing on the inner aspect of the right thigh, extended from Ponpart's ligament to the knee. When removed, it weighed 90 ounces, Chinese, or considerably over 100 oz., English. From the time it was first noticed until it was removed was only five months.

Case No. 8.—Typhus fever. He was brought into the hospital in a semi-comatose condition, with a fever of over



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104°, in axilla. The same eve he fell into a comatose condition and remained so for three days. He was nourished per rectum with milk and beef juice. Large doses of quinine were given in the same manner.

The first day in the hospital the characteristic Mulberry rash came out beautifully, and from this time the fever dropped and remained down, never rising again above 100.5°, until convalescence was established a week after-

wards."

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Then follows quite an extensive list of cases and operations, including 21 cases of labor, three-fourths of which were abnormal. The surgeon in charge has to do all kinds of special as well as general surgery.

"Rhinoscopic Examination in General Practice" was the title of a paper prepared by Dr. B. M. Behrens for the Miss. Valley Med. Association. It was on the program for Friday afternoon, but as the meeting adjourned at noon, it with others was not read. However, we secured for our

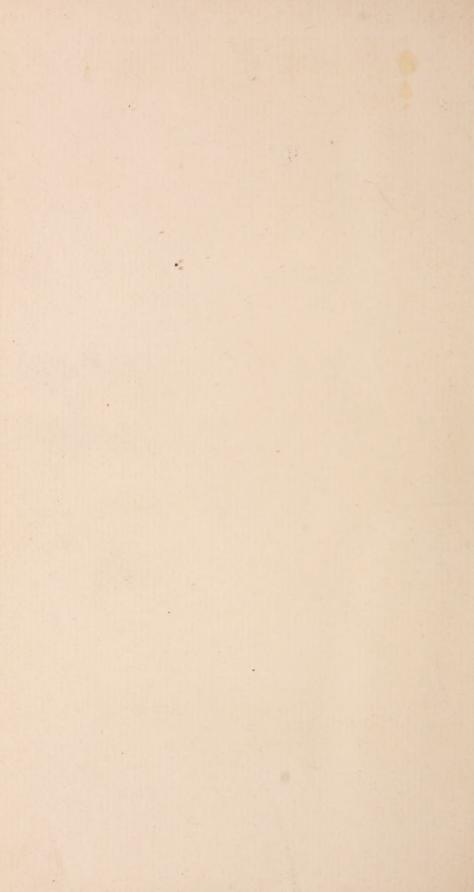
readers an abstract of the essay.

The leading thread through the article is the fact that bronchial affections, asthma, dry cough, etc., arise very often as reflex phenomena from nasal disorders, and in most cases due to hypertrophic rhinitis in its different stages, or polypi; while disorders which are followed by abundant secretions, which the diseased membrane cannot absorb, are swallowed and act as mechanical impurities detrimental to a proper assimilation of ingesta in the ventricle and intestines. Also other reflexes and diseased conditions are mentioned indicating a large field for investigation of etiological factors in many local and constitutional afflictions, which the general practitioner is called upon to treat, and which are mostly treated only in a symptomatic way, if the rhinoscope is not employed. The paper also mentions febrile and auscultatoric changes in the top of the lungs-one or both-which have been observed principally in many cases of atrophic rhinitis, which would disappear with improvement of the rhinitis. It mentions that few cases of nasal disorders call for heroic treatment compared with the many that can be very much benefited by mild lotions, sprays or topical applications of astringents, which have the merit at any rate of not being injurious to this important organ.









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